ASSESSING THE VA IT LANDSCAPE: PROGRESS AND CHALLENGES

HEARING

BEFORE THE

COMMITTEE ON VETERANS' AFFAIRS U.S. HOUSE OF REPRESENTATIVES

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ASSESSING THE VA IT LANDSCAPE: PROGRESS AND CHALLENGES

Tuesday, February 7, 2017

COMMITTEE ON VETERANS' AFFAIRS, U. S. HOUSE OF REPRESENTATIVES, Washington, D.C.

The Committee met, pursuant to notice, at 10:00 a.m., in Room 334, Cannon House Office Building, Hon. David P. Roe [Chairman of the Committee] presiding.

Present: Representatives Roe, Coffman, Wenstrup, Radewagen, Bost, Poliquin, Dunn, Arrington, Higgins, Bergman, Gonzalez-Colon, Walz, Takano, Brownley, and Kuster.

OPENING STATEMENT OF DAVID P. ROE, CHAIRMAN

The CHAIRMAN. Good morning. The hearing will come to order. I want to welcome everyone to today's hearing, and I know we have a lot of Members in different hearings. There are a lot of meetings going on this morning.

going on this morning.

We will begin the 115th Congress by examining IT because it is so important to everything VA does and everything we all hope to accomplish as part of the department's transformation. From delivering timely care to veterans, to ensuring that medical records follow the patient, to making benefit decisions accurately, modern IT systems are essential.

This year and next are pivotal because the department has major decisions to make about how to modernize its systems. VA is also beginning several projects they have attempted with poor results in the past and now is the last chance to get them right.

Let us start with VistA, the electronic health records system that performs so many other administrative functions. The Choice Act independent assessment in 2015 was an invaluable study of VistA. It explained the weaknesses and complexities that have accumulated in the system over the last 20 years and recommended that VA send Congress a comprehensive cost benefit analysis of keeping VistA or changing course. Then in 2016 the Commission on Care recommended VA retire VistA in favor of a commercial off the shelf software. However, the VistA Evolution program was already well underway when these recommendations were issued. VistA Evolution attempts to catch the system up and put it on a stable course for the future. It is the third major attempt to modernize VistA in the past decade. Retaining or replacing VistA is a make or break decision for VA. It must be made deliberately and objectively. While the department provided some cost benefit analysis before and after the independent assessment, it was never as thorough as intended. Senior officials have testified to this Committee and said elsewhere that they accept the Commission on Care recommendation. But what does that mean in practice? And that has become less and less clear. VistA Evolution is now in its fourth of five years, and I understand the desire to finish it. VA must judge it realistically against concrete goals and if it falls short moving the

goal posts is unacceptable.

Another key system is the electronic health management platform, or eHMP, which is also part of VistA Evolution and due next year. This is supposed to settle the medical record interoperability issue with DoD once and for all. After changing course so many times over the years and then putting an interim solution in place, VA has a great deal riding on eHMP. I look forward to hearing about the plan to finish it. VHA also still badly needs a modern scheduling system and both sides of the aisle are united to make sure it finally gets done this year. The Faster Care for Veterans Act puts commercial self-scheduling software in competition with VA's VistA self-scheduling project and sets high standards for both of them. If either one of them cannot meet the standards it must be eliminated. VA announced in the media that the VistA project called VAR, V-A-R, would be rolled out in January. Since that did not occur the Committee would like to know what happened.

Rounding out the list, last year this Committee highlighted upgrades to the system used to process community provider claims that had not been implemented. There has been some progress but the situation is far from perfect. Similarly, the Veterans Benefits Management System has advanced at great cost but still cannot

handle appeals or all types of claims.

Further, after two previous attempts VA is again trying to replace its antiquated financial systems. This time the plan is to adopt an existing system used by the Agriculture Department rather than build it. This is very encouraging but it is a complicated, delicate project.

Congress recognizes the depth of technology needed by VA. To that end we have increased the IT appropriations more than seven percent on average throughout the last five years. All of these programs and others we will address today must use tax dollars responsibly. That is why the Inspector General report released last week on the failed cloud service broker contract is so troubling.

Unnecessary data centers are a big problem that devour VA's budget. These contracts were an effort to push the department into the cloud and make headway in consolidating the data centers. But the \$5.3 million was wasted and nothing useful produced. That \$5.3 million could pay for so many other things, for instance 70 entry level nurses in Johnson City, Tennessee. Every account in the budget affects every other account and we have to start thinking that way.

I will now yield to my friend, Ranking Member Walz, for his opening remarks.

OPENING STATEMENT OF TIMOTHY J. WALZ, RANKING MEMBER

Mr. WALZ. Thank you, Chairman Roe, and I want to thank all of you for being here today, and I appreciate the collaboration of

the Chairman of understanding we are coming out of the block in this Congress. This is our first hearing in here and there is a reason for that. IT is the fundamental piece that ties all of the aspects

of VA together.

Mr. Thomas, I appreciate you being here. I couldn't resist the maybe overused cliche' that Groundhog Day was last week. You are the fourth person since I have been here to sit there telling us when we are going to update the records. I know it's with a commitment and a vision and a belief that is going to happen, but I think as many of us talked technology it has not. I get that about information technology. Thinking back to myself, was it a bad buy when I bought that Macintosh II that was soon replaced by the next one, the GS? Which was soon replaced by the new iMac, which was soon replaced by this? It happens. Technology moves quickly. Investments that are made, especially enterprise-wide investments, that is why I think that long range vision needs to be in place. VA has a history of doing this right at times, with VistA and electronic medical record. I often say I represent the Mayo Clinic and they have talked about that. But I have used that since I have been there for now over ten years. The technology has moved beyond that. VistA is no longer the state of the art. VistA is no longer maybe in some cases able to do all the things that we need it to do.

So I think for all of us, our VSOs, certainly the GAO report, you heard the Chairman on this, there is a real desire to get this right. I challenge my colleagues sitting up here is, we need to lay the challenge and say in this Congress we are going to get there. So just the things that we are going to focus on today, on the Commission of Care and our VSOs have called for the purchase of a commercial electronic health record. I want to explore that some, of where we are going. I think, we thought the VA was moving in that direction last summer. It does not appear like that now. That troubles me in terms of long range vision. Also sitting over on the HAS Committee last year of watching DoD in their purchase of an electronic medical record, I know it is more complex and I do not want to oversimplify. I think the question I am going to ask and I am sure some of my colleagues are going to ask is, why do we not have the same one? Why are we not sharing on that? And why are we not thinking about what is necessary in the future to make that happen?

VA remains on that high risk list because of it. We do have to modernize the infrastructure. Dr. Roe is right. We need to be strong stewards of the taxpayer dollars. We understand it costs money. I would add also that we have got a lot of qualified people out there, veterans themselves, that can add to our capacity in the IT field. I also recognize, though, you are not exempt from the hiring freeze. So even if we get you the money to upgrade your infrastructure we cannot necessary put the people in there to do that. That is going to be addressed kind of holistically as we do that.

The next point, and I would just say as I hope to hear today from this is, I have often said we cannot talk VA health care, even VA in general, in a vacuum outside of the general public. If we are going to talk about choice programs and community-based care and fee for service, the inability to communicate amongst the VA and

those private sector entities that in many cases are not as far along as VA is, how are we going to think strategically of what this infrastructure looks like to allow safe, secure, and smart transfer of data between the VA and those private sector hospitals? How are we going to work with them to make sure that interoperability is there, not just between DoD and VA, but between DoD, VA, and the private sector where our veterans are receiving care especially

in rural areas.

I am interested to hear on this. I know it is a challenging job, Mr. Thomas. I appreciate you being there and with your team. But as I said, again, I think from my perspective on this is we are going to have to lay down the line in this Congress that are we going to get to that enterprise wide infrastructure that gets us moving where our folks, because you will hear the testimony from the VSOs, our veterans are getting to the point where they are frustrated. And it starts, whether it is scheduling, whether it is transfer of the electronic medical record, whether it is benefits payments, whether it is smoothing out how we do G.I. Bill, all those things fall under the umbrella of IT. So I look forward to the testimony and I thank the Chairman for the hearing. I yield back.

The Chairman. I thank the gentleman for yielding. I ask that all

The CHAIRMAN. I thank the gentleman for yielding. I ask that all Members waive their opening remarks as per this Committee's custom. And with that, I invite our first and only panel who are at

the witness table.

On the panel we have Mr. Rob Thomas, Acting Assistant Secretary for Information and Technology and the Chief Information Officer for the Department of Veterans Affairs. Welcome, Mr. Thomas. He is accompanied by Dr. Jennifer Lee, Deputy Under Secretary for Health Policy and Services representing VHA; and Mr. Brad Houston, Director of the VBA Office of Business Integration. We also have Mr. David Powner, the Director of IT Management Issues for GAO. I now ask the witnesses to stand and raise your right hand.

[Witnesses sworn.]

The CHAIRMAN. Please be seated and let the record reflect that all witnesses have answered in the affirmative. Mr. Thomas, you are now recognized for five minutes.

STATEMENT OF ROB C. THOMAS

Mr. THOMAS. Chairman Roe, Ranking Member Walz, Members of the Committee, thank you for inviting me to speak with you about our major information technology modernization projects at the VA. I am accompanied by Dr. Jennifer Lee, the Deputy Under Secretary for Health for Policy and Services for the Veterans Health Administration; and Brad Houston, the Director of the Veterans Benefit Administration Office of Pusings Process Integration

Administration Office of Business Process Integration.

As the Acting Assistant Secretary and CIO for VA, I oversee the development and sustainment of every IT system that supports the Department of Veterans Affairs. I have the distinct privilege of working side by side with colleagues like Dr. Lee and Mr. Houston to ensure that the care, services, and benefits we deliver our Nation's veterans are backed by the best technology. Now I could share with you the number of systems and the number of bits and bytes we process each day. But the most important statistic I can

share with you is that 59 percent of our 8,000 person IT workforce are veterans.

I am proud to be a part of that 59 percent. As a grandson of World War II veterans, son of a veteran, nephew to four veterans, and a veteran myself, my responsibility to serve is an honor and a blessing. In 2015 I was living in St. Petersburg, Florida. I had just accepted a VA position there. I had no plans to come back to Washington, D.C. As a native of a small town of 225 people in Western Montana, D.C. is a long way from home. I had already retired from the Air National Guard, served as the Chief Information Officer for a Federal agency, and served as the Deputy CIO for the Department of the Air Force. The job in St. Petersburg came with sunshine and a simple focus: improve the veteran experience. Shortly thereafter I received a call from our former VA CIO. She asked me to come back to D.C. to redefine our approach and to ensure that everything we delivered in IT had a clear path and clear value.

Since that time we embarked on a complete transformation of the organization and we continue to execute against our enterprise strategy. We focused on programs and projects that deliver value and outcomes to our veterans by slashing numerous processes' steps and artifacts to streamline our services. In September of 2016 our new Enterprise Program Management Office was established. We transitioned over 200 projects from the old system to a new agile process. This transition delivered an on time delivery rate with an estimated 85 percent cost avoidance since 2015. The enterprise cyber strategy reduced elevated privileges by 95 percent, remediated 23 million critical and high vulnerabilities, and removed 95 percent of prohibited software.

We are exchanging more health information with DoD than at any time in the department's history. Our VBA claims are no longer paper. The Veterans Benefit Management System, or VBMS, has helped drastically reduce the disability claims inventory. Our Federal Information Technology Acquisition Reform Act, or FITARA score, moved from a C to a B plus in less than a year. VA was one of only three government agencies to receive this rating and is the largest and most complex to do so. We went from 19th to fifth in the OMB customer service survey, the only Federal organization to advance. We have proved out the concept of a cloud based digital health platform that includes holistic improvements to health care operations, reduced wait times, and improving the veteran's experience.

Our Nation's veterans have a force of thousands of IT experts looking out for their needs. It is a team working tirelessly day in and day out to modernize the full veteran technology landscape. It is a team focused on action and discipline to ensure a shift from homegrown separate entities to a fully integrated modernized environment capable of operating as a cutting edge enterprise. It is a team intent on becoming a world class organization that provides a seamless unified veteran experience through the delivery of state of the art technology. They are well on their way to doing so and I am honored to lead them.

Mr. Chairman, I am happy to answer any questions. Thank you.

[THE PREPARED STATEMENT OF ROB C. THOMAS BETH MCCOY APPEARS IN THE APPENDIX]

The CHAIRMAN. Thank you very much, Mr. Thomas, for your testimony. And now, Mr. Powner, you are recognized for five minutes.

STATEMENT OF DAVID A. POWNER

Mr. POWNER. Chairman Roe, Ranking Member Walz, and Members of the Committee, thank you for inviting GAO to testify on VA's IT acquisitions and operations. Technology can help make major improvements so that ultimately our veterans will face shorter wait times to schedule needed care, receive higher quality care, and have their claims processed quicker and more accurately.

VA spends billions on IT annually and does not have a great track record for delivering new capabilities. The department will spend nearly \$4.5 billion on IT this year. That makes them the fourth highest IT spender in the government, behind DoD, HHS, and DHS. Of the \$4.5 billion, only about \$500 million goes towards developing or acquiring new systems. The remaining goes primarily towards operational systems, many of which are old, inefficient, and difficult to maintain.

Every two years at the start of the new Congress, GAO issues a high risk report highlighting areas most in need of congressional oversight. In 2015 we added two new areas, managing VA health care and managing IT acquisitions and operations, which both highlighted concerns with VA's IT management, including past failures where hundreds of millions of dollars were wasted. Next week the Comptroller General will be testifying on our 2017 update and these two areas will prominently remain on the list of about 30 high risk areas.

This morning I'd like to briefly discuss five areas where this Committee's continued oversight is greatly needed. Three areas are major acquisitions associated with electronic health records, scheduling, and claims processing, and two other areas address aging legacy systems and inefficient data centers.

Starting with electronic health records, it is well known that interoperability is needed between VA and DoD and that in 2013 a plan was abandoned to pursue a single approach. In GAO's view this is duplicative and we see no evidence that separate approaches will be cheaper or quicker. DoD is pursuing a commercial solution while VA is attempting to modernize its 30-plus year old VistA system. VA is now considering a commercial electronic health record. This uncertainty is not acceptable and a decision needs to be made. VA needs to let go of VistA and go with the commercial solution. Further, we see no justification for VA and DoD pursuing separate systems.

Turning to the scheduling system, the history with modernizing this system to address long wait times and errors is best characterized as a failure. This project was terminated in 2009 after spending \$127 million over a nine-year period. Eight years later, this 30-plus year old system still needs to be upgraded. Similar to the EHR situation there is uncertainty with the approach forward and a decision needs to be made between enhancing the current system or going with a commercial product. To its credit, I'd like to add that

the department has pilots underway looking at commercial prod-

ucts. Again, buying instead of building is the way to go.

The final acquisition I'd like to discuss is VBMS, which is the system that processes disability claims among others. This upgrade was needed to reduce the backlog of claims and to process appeals better. This system was partially deployed in 2013 and continues to be enhanced. The good news with VBMS is that the records are almost entirely automated, eliminated the inefficient paper. However this system was to be completed in 2015. What is needed is a firm completion date and better transparency as to exactly what changes are being made to enhance disability claims and appeals processing. Our understanding is that this year \$75 million is to be spent on developing this system further.

With these three critical acquisitions congressional oversight is essential to ensure that several decisions are made quickly and that progress on all three is better than in the past. Our veterans need these upgrades and I would suggest frequent reporting to this Committee on progress. We at GAO can assist in this oversight in

whatever manner is necessary, Mr. Chairman.

Now I'd like to address the issue of old systems and infrastructure and how VA needs to decommission these systems and consolidate data centers to free up modernization funds. We already discussed the 30-plus year old VistA and scheduling systems. Last year we reported on the government's oldest systems and VA has two systems that are over 50 years old. One is a personnel and accounting system, another is associated with claims processing. These are expensive and difficult to maintain and pose security risks.

Finally data center consolidation. Since 2010 Federal agencies have been consolidating data centers to address unused capacity. Government wide over 4,300 centers have been closed of the 10,000 data centers the Federal government has and collectively we saved \$2.8 billion government wide. VA has done very little in this area, only closing 30 of its 391 centers and saving only about \$19 million.

Mr. Chairman, this concludes my statement. I look forward to your questions.

[THE PREPARED STATEMENT OF DAVID A. POWNER APPEARS IN THE APPENDIX]

The Chairman. Thank you very much. The written statements of those who have just provided oral testimony will be entered into the hearing record. Now I will yield myself five minutes to begin questioning.

First I would like to start off with Mr. Thomas. And I know that we are spending \$4 billion or \$4.5 billion or so each year on technology, which is a marked increase and obviously needed. I read in the report that 86 percent of the money we are spending on IT is used for just maintaining the current system. If we put an off the shelf, as the Commission on Care recommended, if that were adopted, and I realize all the hazards and difficulty in doing that, how much of that would, how much would you need to maintain a new system? In other words, what percent of that budget, instead of 86 percent? Would it be half the budget? A fourth the budget? Or how

much to maintain a brand new system? Just like maintaining a

new car usually is pretty inexpensive.

Mr. Thomas. Chairman, I do not have an exact number on that. But we definitely agree that our numbers are out of kilter from industry. You would like to see 60 percent or so in maintenance and 40 percent in development. As has been communicated we are running an 85 to 90 percent in sustainment. We have to shrink that footprint. We have to shrink that sustainment. And we do have a legacy modernization effort now that we have stood up to go after those sustainment dollars to reduce that footprint. It would have to be, to your specific question, I would have to know exactly which system we were looking at and which ones we were replacing in order to give you an exact number.

The Chairman. Certainly, I agree with that. The question, I guess what I was looking for, the number is significant. And however much that is, that could actually go into paying for a new system instead of maintaining an antiquated system. Do you agree or disagree with the statement that VistA lacks the tools and the extensive analytics capabilities of a modern commercial EHR? Do you

agree or disagree with that?

Mr. THOMAS. I agree with you, Chairman.

The CHAIRMAN. Well then we, then why are we proceeding down, and I know you are not, Mr. Thomas. You have been given a job to do. But why would VA continue down that road when basically DoD swallowed the bitter pill and they are in the process, and I know, I have implemented an electronic health record system. It is not easy going from paper, transporting from where you are now to a new system would be an enormous undertaking. I certainly understand that. But my fear is, I have been sitting here now for eight years and listening to how it is going to get better and so forth. And I realize there are a lot of good, smart people out there that are working on this. It is obviously not easy. But there are great commercial off the shelf products that can do scheduling, that can do billing. I was reading where I think it is TriCare and Medicare pay their claims at 99 percent in 30 days. VA is 60-something percent in 30 days and we are losing our providers. They are dropping off and that is hurting our chance to reform the Choice program. Because if you do not have network providers out there in the private sector you cannot do the Choice program. So the fact that VA does not have the technology to pay its bills is actually hurting our mission of health care.

So I think, another question I have on the benefits side it was estimated that the life cycle costs would be about \$579 million and a year later it is \$1.1 billion. That doubled in a year. So I think we have been sort of burned with that. We have seen what happened out in Denver and other things VA has done in house. So maybe we should look at off the shelf. And I know this is not your cause. Your job is to try to make the system work. I understand

that and I appreciate your team's hard work.

Another question I have on VBMS, how often is that system down, not functioning? And how much lost productivity is that, when people cannot access the records or anything?

Mr. THOMAS. Chairman, I do not have a specific number on the downtime. I will tell you that we do quarterly releases to make sure that the system is performing and doing what the benefits folks need to have. Those tools are extremely important for eligibility and benefits. But I do not have a specific number on the downtime over the past 12 months. But I can get back to you with that.

The CHAIRMAN. I would appreciate that. Because I think that obviously delays the claims being completed. What are the success criteria for VistA 4 and eHMP? And I don't mean just the back end technological improvements. What are the new things clinicians are going to be able to do, such as in care coordination, information sharing, they cannot do now? And I will, I am going to gavel myself down. My time has expired. And if we have a second round I would appreciate the answer. I now yield to Mr. Walz for five minutes. Mr. WALZ. Thank you, Mr. Chairman. Back to this issue of leg-

Mr. WALZ. Thank you, Mr. Chairman. Back to this issue of legacy costs that we were, it is my understanding DoD spends about 95 percent of their IT budget on managing legacy costs and that was one of the main reasons they gave publicly for moving to a commercial program for them. And so I think that the question Dr. Roe brought up is very interesting. Again, without gross generalization that used car that is sucking up money every single month and is undependable, it is not delivering what it is supposed to do, versus one that is under warranty, is better, again, I know it is much more complex than that. But I think that analysis.

So that brings me to this. We need to know those numbers. And the independent assessment recommended that VA conduct a cost benefit analysis among commercial EHRs, open source EHRs, and the continued development of VA's own custom in house EHR. This report, they were to report this analysis to Congress by the end of

2016. Has this been done?

Mr. Thomas. Ranking Member, we did complete the business case analysis. We completed it at the end of December. We have that. We would be happy to come back and talk to your team about that. But we do have the business case.

Mr. WALZ. Do you feel, Mr. Thomas, that data, and I do not know what it showed, but do you not think that would be an important consideration on decision-making points? What that shows in there in terms of cost versus those different routes?

Mr. Thomas. Yes, absolutely. I totally agree.

Mr. WALZ. Are there commercial sources in your opinion, or maybe some of the experts with you, that would support VHA the way we need it to?

Mr. Thomas. Absolutely. I mean, it is going to be my goal and my charge that we go commercial to the greatest extent possible. Because we have not had a great track record on developing software. It has been delayed. We have seen the delays. And it is going to be my goal to go commercial to the greatest extent possible.

Mr. WALZ. I think if the data leads us there, and I think many of us up here it has led us there, I get the feeling that people who sat in your position before agreed with that, too. I think Dr. Roe brought up an interesting point, he is probably right about this, unfortunately it does not appear like it is going to be your call. My suggestion to our colleagues is I think it needs to be our call, with the money, with the taxpayers, if we are getting the right data in this. If the experts are telling me this is the right way to go, if the

data and analysis shows that, and we are simply choosing to go legacy routes because of unknown reasons, that is when we need to step in and say, no, we are going to pursue this. Which leads

me to the next one.

GAO believes it does not have the assurance from the VA and DoD are pursuing the most effective solution. And Mr. Powner, I appreciate your candidness on this, that they are not doing it. I have talked until I am blue in the face about seamless transition. I sat in those hearings over in HAS last year where one of the reasons they gave us over there is that, well, the VA system will not operate on submarines. Perhaps not. I do not know that for a fact. But the issue there being is that we have such unique needs in DoD versus VA that there is no possible way we could design an electronic health record that would have interoperability. It simply did not address the issue of pay, benefits, all the other things that could be interoperable. Is there any progress in our mind, Mr. Powner, that we are moving towards my 201 file can seamlessly shift over to either VBA or VHA without any glitches? Do you think that is happening? Or could it?

Mr. POWNER. No, not at all. I—

Mr. WALZ. Okay. So we hear about all the information they are

sharing back and forth. We hear about all the communications that are starting to happen. But none of that matters to the veteran. What I care about is, I go into VA and they have everything there that I do not have to go back home and dig in a shoe box for, you

know, whatever it is that was given to me paper format.

Mr. POWNER. Look, it is well documented there is a lot of commonality across the two departments and agencies. Yeah, there are some unique requirements. But what, the problem with the Federal government is they are so reluctant, not just VA but other pockets in the government, to buy commercial products and change anti-quated business practices. Buy commercial product and change the business practices. That is why DoD's estimate is so high because it is primarily going to change the business practices. So that is buy one, and change the business practices. And if we have a few one-offs on ships or whatever it is then we have one-offs. But you can work around the one-offs if you have an 80 or 90 percent solution for the two departments.

Mr. WALZ. And it is, and I can tell you this Committee, and I am very careful, again, I keep coming back to the term. I do not want to oversimplify something that is very complex. It is not as easy as people want it to say on all this. I have to tell you, I cannot talk to a veteran and justify why we are going to spend countless dollars for two systems that may not communicate, that do not improve the veteran experience, that do not make it more secure, and do not guard taxpayer dollars. So I am at the point now where I encourage my colleagues on this is we need to demand an interoperability. We need to have one system. We need to buy it if it works there. Then we need to be responsible to make sure it is implemented. And ten more years of it, I cannot stand it.

The Chairman Bost, you are

recognized for five minutes.

Mr. Bost. Thank you, Mr. Chairman. And if I can, and if the Committee will tolerate me, going back to the Ranking Member's,

just so you know it is very hard to explain to the general public why it is that we cannot take our records from DoD and go right into being a retired veteran, and that same medical record cannot be transferred. That is very difficult to explain to the public. Now I know it is hard to get done, and I know that the military and we in the military have always worked that way. Because remember the computers were turning up whenever I got out of the military and I still have the blue microfiche. Now I have to have find a microfiche reader to be able to see my records, which you cannot hardly find those anymore by the way. That being just an opening statement. That is not where I want to go with the question.

I would like to, if I can, question Mr. Houston with the VBMS. You know, our last numbers we have shown that the total cost of the VBMS was about \$1.3 billion from January, 2015. How much of that the department has spent on developing the VBMS to date?

Where are we at, as far as the numbers are concerned?

Mr. HOUSTON. Congressman, the development cost is about \$500 million. The remainder of that cost is testing, quality assurance, and then the operating costs for running the system, and then the cost of loading the system.

Mr. Bost. Okay. Well the estimated cost from what I understand it was \$579.2 million, but that was in 2009, is that correct?

Mr. HOUSTON. Sir, I am not sure where that number is from.

Mr. Bost. Okav.

Mr. Houston. But we did not spend \$579 million in 2009.

Mr. Bost. Okay. So the real question I have is, is does the VBMS

have the capacity to process pension claims?

Mr. HOUSTON. Congressman, it currently stores all records for pension claims. It makes payments for some of the pension claims. This year we will finish the processing so that it will be able to pay all pension claims through the VBMS system.

Mr. Bost. So it will be done by the end of this year?

Mr. Houston. Yes, sir.

Mr. Bost. Well if that is to say, now from start to finish?

Mr. Houston. Yes, sir.

Mr. Bost. Okay.

Mr. HOUSTON. In addition to the payment of the claim, we have integrated incoming pension claims into our central intake system as well. So it will be start to finish, Congressman.

Mr. Bost. Okay. How much of a priority has this been with, through your agency?

Mr. HOUSTON. Congressman, I am new to the VBMS team. However, pension processing has been right behind the backlog as far

as the priority for the systems development.

Mr. Bost. Okay. The reason why I am asking these questions and the concerns I have is each one of us in our office, and one of my busiest members of my staff is a veteran himself that processes these claims. And the process and the length of time that it takes is so devastating to our veterans. And many become frustrated and they just throw their hands up and quit, and that is not what we want them to do. We want that opportunity for them to receive their claim due them, if due them, okay? Now that does not mean we want fraud or anything like that. But those that are truly due the benefits, we need to be able to process them as quickly as possible. And in this electronic age, there is no reason why we should have to wait as long as we do and why it actually takes an act of Congress to try to push through some of those that are very, very clear and the concerns that we have. So my hope is that you are continuing to work on the system to get it to where it works as fast as possible, at the point that the private sector feels it should

Mr. Houston. Congressman, that is absolutely correct. And you mentioned end to end. I think more important than just end to end is automation. End to end processing with our same humans has the same constraint. And pension claims are math. And one of the things about moving them into central intake is to extract the numbers they wrote into data so that we can do automated decision-making or accelerated decision-making through the use of automation. And that is part of why we need to continue to invest in

Mr. Bost. Okay. Thank you and I yield back.

The CHAIRMAN. I thank the gentleman for yielding. Mr. Takano,

you are recognized for five minutes.

Mr. TAKANO. Thank you, Mr. Chairman. Anyone on the panel might answer this question. Does interoperability between DoD systems and the VA systems depend on using the same vendor? In other words, is VA, if we are going to move toward interoperability, are we in a position where we are going to have to be forced to, say, adopt the Cerner system because DoD has purchased it first?

Mr. Thomas. You will recall last year my former boss LaVerne Council came over and talked to you about the digital health platform. We went down that proof of concept during the summer and into the fall. And what we did prove out in that is that we can have full interoperability with the Cerner EHR with the FHIR, which is the Fast Healthcare Interoperability Resources. It is the industry leading standard. So we would not have to be on the same commercial EHR and we could have that interoperability you are asking

Mr. TAKANO. So if we were to go, make a commercial decision to go fully commercial, we would still have an option to look at different providers and take bids or evaluate who might offer the best value in terms of a contract?

Mr. Thomas. Yes, Congressman, that is the plan.

Mr. TAKANO. Do you generally agree with the idea that who owns a patient's data should be the patient him or herself? You are nodding yes. Is it, is it the case in the private sector that there is complete portability of data in most cases? Is that something we are arriving at? Or are there impediments to that?

Dr. Lee. Congressman Takano, I can speak to that. So as a practicing emergency room physician I have worked in many different health systems in the private sector and now at VA and also in

DoD. And the interoperability or portability of records is a challenge in many of our systems. We are getting better but it is still a challenge.

Mr. TAKANO. Is there a proprietary interest among private health care providers to really not be fully portable because they want to keep that information to have some sort of economic advantage? In other words, that data is valuable in terms of being able to not

share, that really they are not fully on board with that, the patient has a full ability to have that data be portable.

Dr. Lee. I personally believe that is often the case.

Mr. Takano. Has not been the case? Okay——

Dr. Lee. That that is often the case.

Mr. TAKANO [continued]. You think that is often, that is the case?

Dr. Lee. Yes. Yes.

Mr. Takano. So here is my question in terms of our potential of going fully on Choice, is we have VA with its massive data, it is one of the largest health care systems in the world, looking to interact with a private sector system that is not going to be fully transparent, not fully on board with the idea of 100 percent portability. We are trying to achieve that between the DoD. There is no question I think that all of us on this Committee want that to happen with DoD and VA, that we have seen terrible things happen when there is not that 100 percent portability. But I think there is a question about whether that portability is something that we will be able to achieve in interfacing with the private sector.

Let me see what other questions I might have had.

Dr. Lee. Can I speak to that for—

Mr. TAKANO. Please, go ahead.

Dr. Lee [continued]. So you are absolutely correct. We need to improve our health information exchange with the community. Because now, over 30 percent of our care is actually purchased in the community. And so health information exchange is not only, and interoperability is not only critical with DoD but with our community.

nity partners.

The way that we are going about doing that is through the eHealth Exchange, getting our community partners to sign on to the Health Information Exchange. And over time we have improved significantly in the amount of information exchange we are doing. So right now we have over 88 community partners, that represents 815 hospitals, over 430 federally qualified health centers, 150 nursing homes, over 8,400 pharmacies, and over 14,000 clinics. So, and those are health systems like the Mayo Clinic, Cleveland Clinic, Johns Hopkins, and other major providers where you can now go, they can see our veterans' information securely and we can see information about those patients if they have been in those systems.

Mr. TAKANO. Dr. Lee, do you think it is an important principle that we establish with regard to interacting with the 30 percent of our private sector providers that the patient's medical information is owned by the patient and should be 100 percent portable?

Dr. Lee. I think that is our goal. We want to empower patients. It is one of our goals in VA is to engage our patients, our veteran patients in their care. And I think that would lead to better health.

Mr. TAKANO. Thank you.

The CHAIRMAN. I thank the gentleman for yielding. Just to comment, the 21st Century Cures Act made strides to make different commercial EHR systems share information. It imposes a \$1 million penalty for every occurrence of information blocking. And Dr. Lee, you are absolutely right. One of the problems you have is

being able to share data when you are in the ER or wherever you may be seeing a patient. I now yield five minutes to Dr. Dunn.

Mr. DUNN. Thank you, Mr. Chairman. And also let me say thank you for allowing me to participate on this important Committee. I am the son of a veteran, a father of a veteran, and also a veteran

myself. So it is very close to my heart.

Mr. Thomas, I understand the VA has yet to resolve some 9,500 outstanding system security risks identified by the IG as recently as March of last year. They also produced 35 recommendations for improving the VA's information security programs, six of which were recent and 29 of which came from previous years. Now the VA is required under the FISMA, the Federal Information Security Modernization Act, to ensure effective security controls over your information resources. My question is do the weakness in your security posture put at risk any personally identifiable information for your patients or your workforce?

Mr. THOMAS. Thank you. I would say protecting the veterans' data and the employees' data is job one for me. It is what keeps me most focused and most concerned. As you communicate, we have had a number of findings. We have closed three of the eight findings. We have 35 plans in play right now. We have a very large focused team. And we plan to close all of those findings at the end

of 2017. So it is a major focus for us.

Mr. Dunn. In '17? Excellent. So is the VA aware of any breaches in security where personal information was retrieved by intruders?

Mr. Thomas. I am not aware of any at this time but I can get

back to you. If we have had some I have not been told.

Mr. DUNN. Obviously, we would be curious to know that. And finally, can you share with the Committee why the VA has had so much trouble? What is keeping you from better securing this system? And you spoke to the timeline, so that was my question.

Mr. Thomas. I think VA lacked a coherent strategy on cyber. I think in 2015 when we came together and developed the enterprise cyber strategy, delivered that to Congress, we developed an incredible plan that had a lot of details. It had 900 actions that we needed to take care of in our integrated master schedule. And we have been going after all of those. When I came to the VA we had personally identified the PIV cards that everybody has to use to log on, we were at less than ten percent when I came to the VA. Leaving FEMA, we were at 99 when I left FEMA. Coming to the VA, we were at ten, we are now at 85 percent. We have made incredible progress in the last 18 months.

Mr. DUNN. Thank you. Mr. Powner, in your expertise do you wish to add anything? Elaborate on any of those comments or—

Mr. POWNER. No. I would just say on the information security front, that was IG work not GAO's, but the good news is there were those vulnerabilities and they are fixing them. I think the question of the breach is I think another important bit of information for this Committee would be the number of times the VA has been attacked, whether there was a breach or not. Because sometimes you might have a full breach but your understanding of who is hitting us and at what frequency, that is, you kind of need to know that, too. And that is very important.

Mr. DUNN. And can you share those numbers?

Mr. POWNER. I don't have that personally. I don't have that information. We have not done detailed work on it. But that is clearly something that the Chief Information Security Officer would have.

Mr. Dunn. Who do you think the actors are? Who is trying to

breach your information?

Mr. POWNER. It is all over the board. I mean, I do work, I do some detailed work on things like on NOAA ground systems for our weather satellites. They get hit and we did some recent work on that. And, you know, it's all over the board when you look at that. And that's why it's important, it's great that the vulnerabilities are being addressed and that hopefully there have not been any breaches where PI has been disclosed. But knowing the frequency of those attacks is very helpful because it helps us secure better. And we just need to be open with that because it is continually increasing.

Mr. DUNN. Thank you. We would look forward to seeing those

numbers. Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman for yielding. Ms.

Brownley, you are now recognized for five minutes.

Ms. Brownley. Thank you, Mr. Chairman. And I want to associate myself also with the comments that the Chairman has made and the Ranking Member as well. And I wanted to ask in terms of the EHR and where we are, so that we are all on the same page here in understanding where we are. Who is making that decision? And when is that decision going to be made in terms of going to, you know, an off the shelf system or continuing efforts on the VistA?

Mr. Thomas. Thank you. I am confident we are going to go commercial. I can't speak for Dr. Shulkin. I hope for a speedy confirmation so that he can come on and help us work through that. I can tell you that knowing his background in industry he has done that and his experience has been a doctor in leading hospitals in the past. I have worked with him the past 18 months. He is very decisive. And I am looking forward for a quick confirmation for Dr. Shulkin to come on as the Secretary.

Ms. Brownley. And so I understand that, you know, these IT systems are complicated. The decision-making process should not be complicated, though. That should be pretty straightforward and simple, from my perspective. So if we go to an off the shelf product, when would we do that? And how long will it take? And do you have a timeline? I mean, it sounds like you cannot really until a decision has been made. But roughly, how long would it take if the decision was made today?

Mr. Thomas. Congresswoman, the only thing I could go by is what timeline DoD has had. We are working very closely with DoD on how they are doing. I'm going next week up to Fairchild Air Force Base to the Genesis Cerner EHR ribbon cutting. I do not have a timeline for you. But I think once the decision is made we

can get back to you with what that timeline would be.

Ms. Brownley. Okay. And the GAO has commented, you know, on the electronic health records, on scheduling systems, on VBMS. And it sounds like we are making some progress on VBMS. Scheduling systems, I am not sure where that is. You know, again, I think this, the decision-making tree and the timeframe should be

a relatively straightforward one that everybody is well aware of and understands that we can monitor. So are we waiting for Mr. Shulkin to come in and everything will be, you know, decided again? Or is there a timeline that everyone is following around some of these systems and where we are going to get the improvements that we need?

Mr. Thomas. So as it relates to scheduling, we talked to you all last year about access being the top priority of the agency and that we were going to modify the VistA scheduling enhancement. We spent \$7 million on that. We have a go-no go decision on putting, delivering that to all of the field. The go-no go decision is on 10 February. So we are very close to that date. We had some slip-ups through the year last year and because of that Dr. Shulkin as the Under Secretary of Health directed that we move forward with MASS, which is an epic commercial solution. We kicked that off in January. We went through critical decision one on January 19th and we are moving forward with the commercial scheduling capability and Boise, Idaho is the pilot.

Ms. Brownley. Thank you. I just hope, Mr. Chairman, as we proceed this cycle that these timeframes that we have and drop dead dates that we can stay sort of apprised. That just we have a sort of almost like a cheat sheet of all these different systems, you know, what the timeline is going to be, where the decisions are, so that we can really monitor them. Because as you said in your opening comments, it always feels like the goal posts are moving and I cannot keep track of the movement on those goal posts because it is testified in one Committee that says this, and then we go to, you know, to the next meeting, and then it said, oh, well we had some delays. Well, okay, so we had delays. How are we being informed? You know what is the new timeline? So I just, I hope really that we can do that and get there.

To the GAO, I am just wondering if you were following the DoD implementation of electronic records and are you sort of watching the success, if you will, as it rolls out? The interoperability with community health services as well?

Mr. POWNER. Yeah, we are monitoring that at a high level and we will keep you apprised on how that is going.

Ms. Brownley. And, I mean, so far are you seeing good results? Mr. Powner. It is very early.

Ms. Brownley. It is very early.

Mr. Powner. It is very early. One comment on the goal post moving, if I could suggest, I do work for many Committees in the Congress on these IT issues. I think it would be very valuable if you guys had a quarterly update on all these systems. One on electronic health records, one on scheduling, one on VBMS. We could establish the baseline and we could get quarterly updates and we can assist you with those updates coming from the department. And then we would have very clear transparency on what progress is being made or if it is not being made, and if the goal posts change. And we would love to assist you in that oversight if you want to do that.

The CHAIRMAN. Your time has expired. I think that is a great idea. I ask unanimous consent to allow General Bergman, who has got to be at another hearing in about five minutes, since I retired

as a Major and he is a Three-Star General I hope I do not hear any objection to that. So if you would go ahead, General Bergman? Fire away. Yes, sir. I am an 04. You are——

Mr. BERGMAN. I had better pay attention here, or listen to the question. Mr. Powner, your testimony states that the VA operates approximately 240 information systems. Of that 240, how many are major, how many are minor? Or are there, is there a third cat-

egory?

Mr. Powner. I don't have an exact number of majors and minors. I will say this, VA has to report on the IT dashboard on what is called major investments. The problem is with their major investments, some of those investments have multiple systems rolled up underneath that. Most of what they do there is major, major operational systems and major systems that are in acquisition. I think the big thing going forward when you look at their split on their IT spend is each year the amount of money they spend on development continues to lessen, while the amount of money they spend on their operational systems and salaries increases. So we are below \$500 million on this \$4.5 billion and that is really what we need to kind of reverse that trend. They are not alone. This is a problem across the Federal government. But a 10–90 split, close to that, is not where we would need to be.

Mr. BERGMAN. Okay. Thank you. Mr. Thomas, how many of those systems does the VA believe are necessary to really accom-

plish the mission?

Mr. Thomas. Congressman, I think the systems we currently have that are even antiquated are necessary for the mission. I would probably say that we have five majors. I would consider Vista a major, VBMS a major, our interoperability is a major, MASS is a major, and then the newer one is our financial modernization. Those would be what I would consider the big five.

Mr. BERGMAN. Thank you. Again, Mr. Powner, how would you recommend that the VA go about the modernization of some of these specific systems to eliminate those maintenance costs that

you referred to and to free up money for new innovation?

Mr. POWNER. Yes, so the modernization or development needs to go hand in hand with the decommissioning of the old systems. So for instance, the one system I mentioned, BDN, which does some claims processing, that is tied to some of their modernization efforts. We need firm decommission dates.

The challenge in the government is we continue to modernize. And VA does do the right thing on incremental development. We encourage that. But you need an end game, like on VBMS, when are you going to be able to deploy VBMS completely and then when are we going to be able to turn off this old accounting system, the

old claims processing system, that is 50 years old?

I will add the data center consolidation, there is an opportunity there not only to modernize and secure our data better, but to save hundreds of millions of dollars if they got serious about it. We mentioned DoD, that they have a worse split on legacy versus new development. But DoD has a great data center consolidation effort and I think they are planning to save about \$4.5 billion when it is all said and done by about 2019 on consolidating data centers. VA needs to get in the same boat with DoD on data center consoli-

dation, because you can shift inefficient spending into the development bucket.

Mr. BERGMAN. Thank you. Mr. Thomas, would you like to add to that at all?

Mr. Thomas. Well I would just completely agree. We have to shrink our footprint. We have often sided with delivering more functionality versus shutting down and decommissioning legacy systems. We are now going after this in an aggressive way. We actually stood up a team in order to go after sunset dates of our systems. We have to shrink our footprint. If we do not shrink our footprint, we do not free up dollars that we can develop and deliver capabilities to serve the veterans and improve the employees' experience. We are going after this in a big way.

Mr. BERGMAN. Okay. Thank you. Mr. Chairman, I yield back the

rest of my time. Thank you.

The CHAIRMAN. Thank you for yielding. Ms. Kuster, you are rec-

ognized for five minutes.

Ms. Kuster. Thank you very much, Mr. Chairman. And I just want to say to General Bergman, who is the Chair of the Oversight and Investigations Committee, as you're Ranking I would look forward to working with you and ask for perhaps from the chair that we could have those quarterly reports unless they are coming to the full Committee. I am going into my third term. This was the very first hearing we had when the class of 2012 came and it is discouraging. It sounds like there has been some progress, but there is a lot of confusion still. And I do not understand why we do not get progress reports and why we only find out about this when we come to these seemingly annual first hearings. So I would take you up on the GAO's suggestion that we get quarterly reports. I think it is a complex area. But we deal with a lot of complex-

ities in the United States Congress. We deal with a lot of big budgets and we deal with a lot of IT. And it is discouraging to me to continue to hear about systems that are 50 years old that pose a security risk that I cannot even imagine, how many people work in the VA that can do anything on a 50-year-old system? Were they seven years old when they started? I mean, how long have they

been there? Who can work on these systems?

Mr. Thomas. Well we have always had transition plans. But to your point, the available resources for those aging systems gets smaller every year as people retire and as people separate. That is what increases that risk. That is what makes this even more im-

portant that we get these legacy systems shut down.

Ms. Kuster. And these are not minimal systems. Accounting? This is how we are keeping track of all these tax dollars across our country? Claims processing, this is why we hear from veterans who wait years, dozens of years, trying to get their fair shake on the services and the claims that they are due. So I just want to join those of us on both sides of the aisle about our frustration.

I am interested in your testimony that buying instead of building is the way to go. That at least seems to be some progress from where we were with the VistA and the Alta and we want to keep our own and we do not want to look at the other. But I have got to ask you a question. Because there is a terminology question that I am concerned about. We hear about off the shelf, and that I presume is a term of art for a private proprietary commercial product. But when you use that going commercial, we recently heard from a VA witness that you are moving toward developing the digital health platform which actually is not commercial. That is a public private partnership, not off the shelf. And my understanding is that that could take up to 25 years. It does not currently exist. It would require a substantial effort, I would imagine a substantial cost. And look you realize, because this is your goal as well, we are put here to serve the veteran first and serve the taxpayer at the same time. And I have just got to ask you, what is it that you are referring to? Are you talking about going commercial or are you talking about some kind of public private partnership that would take a long time to develop?

Mr. Thomas. So when we did the digital health platform, in that it had VistA as one of the options. But it also had a number of commercial off the shelf capabilities that went along with it. For example, customer relationship management out of the box already, not something that we would have to custom build. The analytics engine came out of the box and it was available. So there were com-

mercial products along with our VistA so it is a hybrid.

Ms. Kuster. Can I ask you about scheduling? Because I know I had a meeting in my office—now this is four years ago—with a company that I thought was brilliant. They had a scheduling product that would create efficiencies by taking into account people who are unlikely to show up to their appointment. They have a long history, they have travel issues, getting a ride, you know, any of the number of issues that our veterans deal with.

And that you put the reliable people in the morning and just bang, bang, bang, get them done, and the less reliable people later in the day, and double book. Why isn't something like that in the works? Because I can't even imagine. We are talking about the money that we are spending on IT, we are not even talking about the taxpayer dollars that are being lost from lost productivity just out the window because people can't see the doctor, the health care provider, they need. If you could respond.

Dr. LEE. Congresswoman Kuster, we have to modernize our scheduling system. It is really a priority for us because it does impact our ability to perfectly match the capacity of our providers to the demand and the appointments requested. So, as you heard from Mr. Thomas, we are moving forward with the commercial scheduling solution, MASS, that will really revolutionize the way that we are able to serve veterans.

Ms. Kuster. And my time is up. What is the timeframe on that so my Subcommittee can keep track of that?

Dr. LEE. So we will have results from the pilot in about 18 months, so it will be summer of 2018. In the meantime, we do need an interim solution and that is the VistA Scheduling Enhancement that you heard about. We will have a final answer, go/no go, by the 10th of February.

Ms. Kuster. I just hope this technology is not obsolete by the time you get it in place—

The CHAIRMAN. Ladies.

Ms. Kuster. —but I admire your efforts, and I hope that—

The CHAIRMAN. Time has expired. Chairman Arrington, you are

recognized for five minutes.

Mr. Arrington. Chairman Roe, Ranking Member Walz, thank you for the opportunity to serve on this Committee. I represent West Texas, 29 counties, 40—over 40,000 veterans. I did not serve in the military, and so I thank God for the opportunity to serve those who did serve, and I hope I can make a contribution here.

I got to say I am very discouraged to hear about the timeframe of years and the lack of productivity and problem solving because we are all here to serve the veterans and provide excellent service, there is nobody that does not want to do that, no one in this room. And we are also here to be stewards of the taxpayer monies, and I can't wrap my head around because we are not trying to send a man to Mars, we are just trying to provide services in a meaningful way, and a responsible way, and nothing seems to be working.

Let me jump to my questions, I have so many I will have followup after the hearing. But I hear a lot about symptoms, whether it is the interoperability or the lack thereof, or the operating inefficiency, or the security challenges, or the functionality, I want to try to get at the core problem here. Instead of looking at the cracks, you know, on the wall, what is the foundational problem here?

Is it the personnel management and the challenges in Government to that end? Is it leadership, the lack of continuity, the lack of support from the top-down over the years? What do you think the fundamental issues are to the problems that we are talking about here? I will ask Mr. Thomas then I will ask Mr. Powner to

respond as well, please.

Mr. Thomas. My view, is we lacked a coherent strategy. We lacked the right processes and procedures. For the past 18 months we have been going through an incredible transformation. It used to just to develop 10 or 20 lines of code, it required 61 artifacts, a cumbersome bureaucratic process, 58 governance boards. We now have a small streamlined set of governance boards, now the artifacts that are required are seven.

We incrementally deliver now every 90 days. The continual, perpetual development delivery days are gone. We have transformed. We are showing up differently. We are working much better with our partners than we ever have before. And we have made that turnover, now we—that transformation has happened and now we need to get on with it, which is what we aim to do.

Mr. ARRINGTON. Mr. Powner?

Mr. POWNER. I think a couple key things here. Leadership turnover. Look at the CIO's situation at VA, we get a new CIO too frequently. And when new folks come in, what do they do? A new

strategy, new thoughts, not enough delivery.

Now, to be fair to VA, I think there's been some delivery, like I mention, on VBMS, but what we need is I do not—we do not want to hear another CIO coming in come up with another, we got a strategy. Right, Rob? We got a strategy, we got governance, we got processes, now you need to use it and deliver. That is what needs to occur. But what happens is there is always this new leadership coming in and they come up with a new idea and they do not deliver enough.

Mr. Arrington. Are those processes and strategies memorialized in a strategic plan that we can have and consistently and repeatedly hold accountable the next group that comes in if its—if folks

are being replaced so often?

Mr. POWNER. We actually think they are processes—we have done in-depth look at processes and governance at VA, pretty good. Do we have some recommendations? Yeah. But compared to some other IT shops, pretty good. Okay? And we can be real critical of those processes. They are pretty good, we just need to use it now.

Mr. Arrington. Let me jump to another issue. The mention of the 85 percent of the budget being spent on operating versus development. How many employees are there in the IT shop there at the

VA?

Mr. THOMAS. Eight thousand, Congressman.

Mr. Arrington. Eight thousand. What do you spend as a percentage of your budget on employees, not development costs but employees at the agency?

Mr. Thomas. North of a billion dollars.

Mr. Arrington. North of a billion dollars. And have—Mr. Powner, have we benchmarked those numbers to other departments and agencies throughout the Federal Government? And is

the VA above, way above, outrageously above?

Mr. POWNER. They have a lot more employees than most department stations. They are one of the largest. So, yeah, \$1.3 billion of their \$4.5 billion goes towards salaries. Here is the issue though. Some of the—like, we had talked about those old 50-year-old systems and the Cobalt programmers, you pay a premium after a while when these folks all start retiring. You either pay a premium to your employees, or you pay a premium to contractors.

So as you hold onto those old Cobalt base systems that are 50 years old, it is just getting worse every year. Every year it gets

worse.

The CHAIRMAN. Gentlemen's time has expired.

I will now like to recognize a very proud New England Patriots

bragging fan, Mr. Poliquin, for five minutes.

Mr. Poliquin. You know, Mr. Chairman, I am very pleased that you brought that up, and I do not want to chew up a lot of my time. But you notice, sir, that I am wearing my New England Patriots necktie on today.

Now this is a very serious topic we are talking about today, Mr. Chairman, but we have so many sports fans that are veterans. So this is a great day in America, Mr. Chairman. It is a great day for the New England Patriots, and I thank all of our veterans in this

country for pushing us over the goal line.

With that said, Mr. Thomas, we all love our veterans, and I thank you for your service to our country, sir. We just love our veterans. In Maine Second District, we have about 65,000, throughout the entire State of Maine about 125,000. And, you know, I know, Mr. Chairman, that it was George Washington who first said that we can't expect, we can't expect young men and women to serve in uniform unless we take care of those who have already served. Now I am paraphrasing, but that—everyone gets the point, I am sure.

Mr. Thomas, I am very concerned with the fact that the VA is such a huge organization designed to do so much good. Three hundred and forty thousand employees, 144 VA hospitals around the country, about 1,200 outpatient clinics, and about 300 veteran centers. All designed to help those that we love so much that have given us our freedom.

However, there has been a spotty track record at best, if I may, and I am being—trying to be polite. When it comes to designing these IT systems, and those of us that are involved in the business community for a while understand that it is really difficult to design your own system internally and then customize it, it is very, very expensive. On the other hand, if you buy something off the shelf, Mr. Chairman, then you are put in the situation where you might have to adjust it also. And there's a real temptation to do that.

One of the things that is a concern of mine with the VistA system is that in all of these outlets across the country, we have so many of our hospitals and outpatient clinics that have data, medical records and so forth, clinical information that are kept on local servers, or on the computers themselves.

This thing, everybody in the world knows what it is. The data in this machine is kept on a cloud. And if you have it on a cloud, you can access that data anywhere in the world. So when I look at one of our great veterans from Lewiston, Maine, who is maybe traveling down to Florida with his family, or her family, and has a health problem and goes to a VA facility down in Florida.

We need to make sure that these records, Mr. Chairman, are accessible all around the country. And I think the way to do that is to have one system fully integrated across the VA network, coast

to coast.

Now, I know that you folks are not-and I would like to turn not to the VistA system, which is more clinical in nature if I am not mistaken, but more to your financial system that you are now looking to modernize. And I understand that you folks are looking towards sharing a system with the Department of Agriculture, and I am all for sharing. It is a great way to save money, to give better service to our veterans.

So my question to you, Mr. Thomas, is that what is going to be the temptation at the VA to customize a system that you are sharing with AG? And what would that cost if you were to do that? And

wouldn't that put you behind?

Mr. Thomas. I completely agree, Congressman, the whole track record of the Department of Agriculture already providing the shared services unlike what you are alluding to where we do it ground-up. We start developing and it goes on, and on, and on and we do not deliver, that is not our plan. There are many customers already with the Department of Agriculture, we are working that fit-gap analysis right now. And we are not going to be developing, we are going to be using what they have already provided to so many of their other customers.

Mr. Poliquin. And if I may, Mr. Thomas. What is that expected to cost the taxpayers at the VA? What is the VA cost to sharing

a system with AG?

Mr. Thomas. The total cost to date, we are showing it just a little less than \$400 million. We are starting with \$40 million this year.

Mr. Poliquin. Four hundred million dollars to share a system that already exists?

Mr. Thomas. Yes, sir.

Mr. Poliquin. And when do you expect to be fully integrated

with this system? How long is it going to take?

Mr. THOMAS. They are still working on the fit-gap analysis. Ed Murray is the CFO, and he has an executive steering Committee that I am a member on, they are working the gap-fit analysis. Once that gap-fit analysis is complete, we will have a schedule-

Mr. POLIQUIN. And how long have they

Mr. THOMAS [continued]. —and a timeline.
Mr. POLIQUIN [continued]. And how long have they been working to try to find out when this will be done?

Mr. Thomas. It is a recent start with fiscal year 2017. So we are just getting started, we are just getting rolling.

Mr. Poliquin. I believe my time has expired, Mr. Chairman.

The CHAIRMAN. Thank the gentleman for yielding. Dr. Wenstrup, you are recognized for five minutes.

Mr. Wenstrup. Thank you, Mr. Chairman. Thank you all for being here today. You touched on something before that I would like to dig into a little bit deeper, which is really this continuity of leadership and the ever changing roles that you may have depending upon whoever comes in next.

And so just out of curiosity, I will start with you, Mr. Powner,

when did you come into the VA?

Mr. POWNER. Well, I am with GAO, so I have been with-

Mr. Wenstrup. Okay.

Mr. Powner [continued]. —GAO since about 2004.

Mr. Wenstrup. And working on this type of—this entity for how

Mr. POWNER. I am actually new to the VA but I have done a lot of IT work across all Federal departments and agencies for the last 12 years.

Mr. Wenstrup. Have you ever worked on anything as large as the VA?

Mr. POWNER. Yes. I do a lot of work at IRS on their tax systems and modernization. Same challenges.

Mr. Wenstrup. Okay. Mr. Thomas, basically the same question. You have been in your role for how long?

Mr. Thomas. The current role since the administration left, I have been in this role for less than a month.

Mr. Wenstrup. Okay.

Mr. THOMAS. I have been at the VA since 2015. And I have had a role similar to this when I was in the Deputy CIO for the Air Force as a deputy to a lieutenant, many Lieutenant Generals in a row. Five, in fact.

Mr. Wenstrup. But this is probably one of the larger missions you have had to take on then as far as the size and scope of what we are embracing here?

Mr. Thomas. Yes, Congressman, that would be true.

Mr. Wenstrup. Okay. So talk about that. And, you know, you come from the Air Force, there's change of leadership there. So what kind of things have you seen that have been the determent to that entity? And how do you feel now with Dr. Shulkin, who has been here, taking over as the secretary, what do you anticipate as far as perhaps better continuity or what do you see as far as that goes? Or are we looking at a whole new direction?

Mr. Thomas. So last week I gave a public media broadcast out at television studio to all 8,000 employees. I communicated that we are going to continue with our strategy, with our plan, with our framework. I said now that LaVerne Council has gone to make the big bucks, what changes do I plan to make? I do not plan to make any change.

That is why she brought me into this role. I was considered her left flank for the last 18 months, during her entire tenure I was right there with her, and that is why I am in this role today to continue on

Mr. Wenstrup. Okay. I appreciate that. Would anyone care to just touch in briefly, if you can, for me, like the current state of access and interaction amongst providers, VA providers that are outside the walls of the VA, ie., Choice, and those that are inside the wall? And how is that progressing? And what are the problems and challenges that you have?

Dr. Lee. Thank you, Congressman. So the Choice Program continues to evolve and improve. We have made a lot of progress, although we know there is still a lot more work to be done.

Last year—well, to date one million veterans have used the Choice Program to schedule more than six million appointments. There are more veterans seeking care in the community now than ever before. And we think that that is great progress because we want veterans to be able to have choice and options to get care how they want it, where they want it, when they want it. We now also partner with over 400,000 community providers.

Mr. Wenstrup. I am talking about the exchange of information. Dr. Lee. Sure. The Health Information Exchange, our—we also have made progress there but, again, more to do. So we use the national eHealth Exchange, which the Office of the National Coordinator promoted. And it allows us to exchange, securely, information between providers, between health systems outside VA for individual veteran patients.

I have had the experience myself. Again, I mention I am an ER doctor. I work at the D.C. VA. I actually worked on Saturday night, and I use some of these tools; Joint Legacy Viewer, Enterprise Health Management Platform, and others to look up old records from patients that I took care of. And it was extremely helpful, and very easy to use from a clinician's perspective.

Mr. Wenstrup. So that would probably be a good segue here. So you are in the ER and you get a veteran come through who has gotten some care outside of the walls of the VA. So how rapidly are you able to gain access to what has been going on with the specialists that they see, or whatever?

Dr. Lee. If the providers that they were seeing are participating in the eHealth Exchange, we can get that information very rapidly.

Mr. WENSTRUP. Are all of the doctors participating in Choice participating in the eHealth Exchange?

Dr. LEE. I know—I do not know the exact numbers off hand, Congressman, we can get back to you.

Mr. WENSTRUP. But they are not required to, is what you are

saying then?

Dr. Lee. At this point, I am not sure exactly. But we are—we encourage—we would like more providers, as many providers as possible, to participate in eHealth Exchange. And that is where Enterprise Health Management Platform, the EhMP, will really help us as the clinical providers, because it offers a easy-to-use search function and it organizes the data in a better way for us to be able to take care of those patients.

Mr. WENSTRUP. Thank you. I yield back.

The CHAIRMAN. Gentleman's time has expired. We are going to

have a three minute second round.

I would like to start by just asking Mr. Thomas, and you do not have to respond right now, or you can. Accessibility for the visually and sensory impaired is very important. In 2012 OIT issued a memo requiring compliance with Section 508, the Rehabilitation Act, by January 2013.

It said, "No software that failed to comply could be deployed." The Committee held a hearing on May 2014 and found progress was not good. Are all systems and Web sites Section 508 compliant

Mr. THOMAS. I do not have an answer, Chairman, if they all are. I will have to get back to you on that. I know we are really aggressively working that, and I am really confident in the leader we have overseeing that, and his team.

The CHAIRMAN. I think that is extremely important for our sight

impaired veterans, so I would like to get a report on that.

And then back to Dr. Lee, you were about to answer my question before I cut myself off, on the success criteria for VistA IV, and you just mentioned an EHMP. And not just the back end, but what are the new things that clinicians are going to be able to do to coordinate care and information they can't do now?

Dr. Lee. So EhMP is necessary because it helps us meet—it helps meet some of our unique clinical needs as providers in VA. So in VA we practice in teams, as you know, and this platform enables us to work together to send messages and communicate more

easily as a team. So that is one thing.

Another thing it does is better clinical decision support. So we have tools right in the electronic health record that help us make decisions about which lab tests to order, which medications to provide at the point of care. And another important thing it does isand this is really critical—is that it actually works not only with VistA but with commercial systems. So it provides many options for us, it is not just for VistA. It can help us to standardize our clinical work processes as we move to any system in the future.

The CHAIRMAN. Mr. Poliquin mentioned this a minute ago, but I think absolutely getting away from all these servers all over the place—I know our practice moved to a cloud many years ago where you can access that information—that is absolutely critical for the country to have a central repository for medical information, otherwise it does not do me any good to be at one hospital ten miles away if I can't get the information other than just take another his-

tory and kind of fly by the seat of my pants.

Å lot of duplication. It is expensive. We order more tests than we need to order. So I think I would encourage VA to very rapidly get rid of all that information, all onsite on an individual computer end of server there onsite and get to a central cloud based.

I now yield to Mr. Walz, three minutes.

Mr. WALZ. Well thank you, Chairman. I am thinking about the integration and how we move this—but I am reading from your trade manual, Healthcare IT News, and it says, "In the latest example of a world class health system yanking its established electronic health record in favor of blue chip vendor, Mayo Clinic is migrating to Epic."

Here is what it said, "Epic will deploy a single integrated EHR and revenue cycle management scheduling system at the renowned campus. This will replace Mayo's three currently EHRs and their accounting system, and will be the foundation for the next several

decades of care and delivery at the world class institution."

They started exploring in April of 2015 and they have implemented. And there are few people—they are at 50,000 plus employees, that scale and that size. My question is, and maybe it goes to the GAO, is it unrealistic for me and this Committee to think that we can come to that conclusion, we can decide to migrate, we can set the working groups in place, and we can have a drop-dead deadline? Because this institution's spread around the world in multiple states, 50,000 plus employees, went from their own proprietary long legacy system, and 18 months made the switch.

Is it possible for us to start getting our mind wrapped around

that?

Mr. POWNER. Absolutely. You need a decision, a plan, action, and I would also say, VA's one of the best at this, go incremental. You do not need to role out an electronic health care record initially that does everything. Role it out on a small scale basis and grow it. They are one of the best agencies at doing that, they know how to do that.

Mr. WALZ. I just feel like I am going to get slow rolled again, and not get there. I am tempted, and I do not know what our—

Mr. Powner. That is why——

Mr. WALZ [continued]. —Constitutional authority is, I want a drop-dead date.

Mr. POWNER. If you look at this historically, you leave it up to the departments and agencies, I think it is going to happen. I think, Congress, with your oversight, whatever you want to do quarter—or whatever you want to do, but I think if you need to manage it with a heavy hand to ensure that deadlines are met.

Mr. Walz. Well, I——

Mr. POWNER. (Indiscernible) deadlines are met.

Mr. WALZ [continued]. No, and I appreciate that, And to some of the members who are here, I know you—now I get to tell the old guy stories. Almost eight years ago, Dr. Roe and I were exploring this. We went to Iraq and Afghanistan, we went down to Battalion Aid Station and watched a wounded soldier come off of a IED hit in Afghanistan.

Watched them open up multiple computers, followed them back to Bagram where they had multiple computers on, followed them out to the transport plane on the way back to Landstuhl. Did not have the capacity to send forward electronically the x-rays, so they were taped to the chest with a big, you know, do not lose, on that.

Followed them back to Landstuhl where they arrived, and then followed them back to here. Then over the years have watched those patients migrate to the VA with the whole intention of that was, as you might imagine, that was an incredibly complicated, complex process that, at times, I have had folks in my office because of the lack of records. We have a young man—and Dr. Roe hit on it—lost his sight because we didn't have timely record exchange. So this is care at the heart of this, it is not a spreadsheet, it is a diagnostic tool that we have got to get right. I yield back.

The CHAIRMAN. Thank the gentleman for yielding. Mr. Higgins, you are recognized for three minutes.

Mr. HIGGINS. Thank you, Mr. Chairman.

It is a question for Mr. Thomas. Regarding the momentum financial system, sir, how did the VA system get so out of date while Agriculture's has stayed current? And what plans does the VA have to ensure the upkeep of this system following its implementation?

Mr. Thomas. Congressman, I would say that there have been attempts before, a number of years ago, that have not gone well. As I stated earlier, the one thing we are not going to do this time is do a ground-up development effort ourselves. We are, in fact, going to use the best practices and lessons learned from, like, for example, GSA is using the Department of Agriculture shared service. We are going to subscribe to that and use that instead of developing it in-house.

Mr. HIGGINS. And in your opinion, this has been the focus in

years past, or is this a newly discovered effort to keep up?

Mr. Thomas. This is definitely a new approach. The last approach was us bringing in other capabilities and developing that long development cycle we have discussed before. This is already using existing shared services that are already being provided to a number of Government organizations today, and we are just going to share those lessons learned, and move out, and make it happen for the VA because we are really antiquated in accounting and financial at the VA right now.

Mr. HIGGINS. Thank you, sir. I yield the balance, Mr. Chair.

The CHAIRMAN. I thank the gentleman for yielding.

Chairman Arrington, you are recognized for three minutes.

Mr. Arrington. I think it was you, Mr. Thomas—and, by the way, thank you guys for your time and your insight—but you mentioned that you have wanted to go commercial to the greatest extent possible. There seems to be this inordinate and unnatural preference to just fix it from within, use the 8,000 employees and the billion dollar budget instead of going off the shelf.

What is up with that? Why is there the default to this fixing it from within and this resistance to going (indiscernible), over the years? You said you are committed to it now, but there have been lots of years these guys have been on this Committee and seem-

ingly little progress. So could you answer that for me?

Mr. Thomas. In my view, Congressman, it is because when VistA started out it was called Decentralized Hospital Computer Program, and they hired developers across the Nation and all of those VMCs, and that has been the VA way, that is not going to be the VA of the future. We are definitely going to go commercial, we are going to definitely do software as a service. We have awarded cloud. We are going to start shrinking our data centers to get into the cloud. We are going in a different direction than we have.

Mr. Arrington. So what I am—I hear, that was the VA way. And I am trying to understand if there is a cultural resistance here. You have got 8,000 people who are civil service employees. Is that a challenge, Mr. Powner, that you have got civil service employees, you have got Government rules, and, in my opinion as a former Federal employee at the FDIC, it is a real challenge to get anything done, and it is an extraordinary, miraculous effort to just get somebody removed or to downsize because you do not need the employees. How much of that is a factor in the last several years of not being able to deliver for the American People?

Mr. POWNER. It is a factor. These cultures run deep.

Mr. Arrington. Is it a big factor?

Mr. Powner. Mr. Thomas and I have talked about—yeah. And, you know, I will give you an example, too, the whole data center consolidation initiative.

Mr. Chairman, you are absolutely right, we ought to be going to the cloud, and putting this data in the cloud, and going to single instances. And most agencies that have done that have better security, better disaster recovery, and were better off.

But what happens is we like to have our data right next to us, and we control it, and see it, and we see the data center. That is the mentality with a lot of these departments and agencies, and it has got to stop. That is not the way we move forward with modern

Mr. Arrington. I will ask it a different way. How much of a challenge is the Government rules, civil service environment, to achieving results and excellent service in IT systems and infrastructure? Big challenge? Tremendous challenge?

Mr. POWNER. Oh, it is a challenge, sure, that definitely contrib-

Mr. Arrington. Real quickly, I have just got a few. What would be wrong with, given the lack of continuity and leadership, having a multi-year enterprise architecture plan audited by the private sector and approved by this Committee, and then implemented by the VA, but it is on a multi-year timeframe? Has that ever happened? Why is that a bad idea?

Mr. POWNER. I think multi-year strategies are good. I think I will throw something else, and I think OMB's leadership out of the White House needs to play a role too. So there is time like this data center consolidation initiative. It was let out of the White House since 2010, we ended up putting in law and the FITARA, Information Technology Act, (indiscernible), in December of 2014 to continue it, and certain agencies did not make a lot of progress like VA, and OMB let them get away with it. That is wrong. OMB should step in and there should be leadership out of the White House, too, on this.

Mr. POWNER. Thank you.

The CHAIRMAN. Gentleman's time has expired.

Dr. Wenstrup, you are recognized, three minutes.

Mr. WENSTRUP. Thank you, Mr. Chairman. Thank you for those

insights today, it is appreciated.

Dr. Lee, going back to what we were talking about before. In my practice, you know, we would have patients in our region going to different hospitals, going through different ERs, whatever the case may be, and we were able to consolidate and be able to go online in our offices to access what patient care they got somewhere else. And it was extremely helpful, obviously, to us. Again, not repeating tests, things like that.

So you talked about the eHealth Exchange and the ability to access those types of things. Is it a relatively simple access? And is it relatively easy to both read and write into it as a provider? And should every provider that sees a veteran under a VA system be required to have access to this and use it, in your opinion?

Dr. Lee. So, Congressman, we have made tremendous progress in interoperability. The key to that under VistA Evolution was the Joint Legacy Viewer that actually gives s access to the DoD records for our patients. Two point five million patient records have been viewed through the Joint Legacy—

Mr. WENSTRUP. I do not men just DoD, but I mean community

care that people are getting today, too.

Dr. Lee. So the Enterprise Health Management Platform allows a very simple search ability for those types of records. I have tried it myself, it is easy to use. It helped me taking care of a patient. Some of these tools, as you said, you need that data right when you are seeing that patient to be able to make clinical decisions.

Mr. Wenstrup. But what I am asking is, today in the community, if someone is getting care in the community, are the community providers required? Does not sound like they are required, to be able to use this network. And are they required to write into it as well so that all of those records are there?

This is what I am trying to get at. That because people are going to various places, how easy is it, or are we not requiring that people are engaged in an information system that will give you, in the VA emergency room, access to whatever else they have had done? Because, you know, they say, well, we do not have that one, you know. Should be requiring everyone to participate in this? Every provider that sees a veteran?

Dr. Lee. I think that would be the goal. One of our challenges actually is we need a statutory change to Title 38 of Section 73–32, which this was actually put forth last year by Congressman O'Rourke on this Committee, the Vet Connect Act last year. But what one of our barriers in health information exchange and sharing is that the veteran has to opt in to sharing of their entire record because of certain protections that are in Title 38.

What we would like to do is change that to an opt out model so that we can share, securely, that information with community providers. That will really help us tremendously in sharing health information.

Mr. WENSTRUP. Yeah. I think if that was just part of signing in when you say you are going to go to the community that that is a given. Anyway, thank you. I yield back.

The CHAIRMAN. Thank the gentleman for yielding. Mr. Poliquin, you are recognized for three minutes. Mr. Poliquin. Thank you very much, Mr. Chair.

Dr. Lee, back in—let's see, I am trying to think when this was, Dr. Lee. This was—well, several months ago, in any event. The San Diego Union Tribune came out with an article that said at some point in time, 6 million veterans would be able to schedule primary care appointments through one of these little gizmos. Remember that? But that was back in October, this is now February. Where does this all stand?

Dr. Lee. So happy to give you an update on that, Congressman Poliquin. So the Veteran Appointment Request app is available now at 45 sites, including Togus, actually.

Mr. Poliquin. Thank you.

Dr. Lee. If the veteran goes to—it is Veterans—Mr. Poliquin. Oldest VA hospital in the Nation.

Dr. LEE. That is right. Mr. POLIQUIN. First one. Dr. LEE. At Togus VA. Mr. POLIQUIN. In Maine.

Dr. Lee. If the veteran is seen at Togus VA, they can go to veteran.mobilehealth.va.gov/veteran-appointment-requests. I have tried it myself, I have asked veterans who I know to try it out. You can schedule yourself for a primary care appointment—

Mr. Poliquin. Okay.

Dr. Lee [continued]. —right on your phone.

Mr. Poliquin. Thank you, Doctor, that is wonderful news. Now help us out with folks that were not able to record exactly what you said again. Where do they go to get this—

Dr. Lee. They can go to our—

Mr. Poliquin [continued]. —address?

Dr. LEE [continued]. They can go to our va.gov Web site and do a search for VAR, Veteran Appointment Request.

Mr. POLIQUIN. Okay. And they can actually book their own appointment?

Dr. Lee. Correct. That is correct.

Mr. Poliquin. Wonderful. In the Faster Care for Veterans Act, Dr. Lee, I believe the way it was supposed to work is that if an appointment slot is cancelled, then that automatically goes back into the system as an available slot for an appointment for a veteran; is that correct?

Dr. Lee. There were specific requirements laid out in the legislation, and we are working on an RFP that we will be putting out actually next week for this—to comply with this and seek other commercial solutions for self-scheduling.

Mr. POLIQUIN. Okay. Dr. Thomas, looks like you want to say something about this initiative.

Mr. THOMAS. So we had 60 days to put out the RFP, we are on schedule. We have 120 days then to make a selection, we are on schedule for that. And then we have the remainder of that time in

order to make the selection and the pick. But we are on track from the statute from December.

Mr. Poliquin. As a culture at the VA, Mr. Thomas, how are your folks going to accept this new technology? You said you have 8,000 folks that work for you in the IT area, but there are 340,000 system-wide. Do you have a flavor or an idea of how they are going to accept this?

Mr. THOMAS. I think we have made transformation. Our culture is changing, it changes one employee at a time. I am very confident that the employees we have, we can deliver on what the VA employees need and what we really need to provide for the veterans.

Mr. Poliquin. Because, with all due respect, it is not about the employees, it is about our veterans.

Mr. THOMAS. That is exactly right.

Mr. Poliquin. Although I know many of your employees, our employees, are also veterans, and we are very grateful for their service. But it is about our veterans. Good.

I believe my time is just about expired.

The CHAIRMAN. Yes. Thank gentleman for yielding.

And I want to thank our witnesses. This has been a great panel. I think it is impressive that the first thing we started—the first hearing we have had in this Congress, 115th, was amazingly well attended. This is an incredibly difficult subject. And now I would like to yield to Mr. Walz for any closing comments.

Mr. WALZ. Well, thank you, Chairman. And, again, I appreciate the collaboration and the vision that this is key to transformation, and it is obvious all of you know that. I want to thank you for that. I would also like to say, Mr. Powner, thank you for giving us the eye, a candid assessment.

And, Mr. Thomas, I agree, I too am very optimistic, and I have been here before. I often say I am the eternal optimist because I supervised a high school lunch room for 20 years. I think you give me reasons to be optimistic.

The one thing I would say for the gentleman from Texas, that there is a role for us to play in this in terms of more than just oversight, and they are right on the question gets asked. He is right about a multi-year strategy, but what he needs to, and I would ask him to work with us on this, we can—there is no private business that would budget by 90 day CRs.

There is no budget that would arbitrary freezes on positions that should be plus, and others should be gotten rid of. Having the black and white of that without an honest discussion makes it very difficult for you to do that. When we made the argument, and Dr. Roe was there as a champion, for advanced appropriations to make sure that our political squabbles did not get in the way of delivering for the health care side of the VA, we exempted the IT from that. Yes, our health care folks are there but our MRI cannot be used or serviced because the budget froze, or whatever it might be.

I want to say, we understand our responsibility in terms of oversight, we also need to understand our responsibility giving you consistency in the budgeting. The gentleman is right on this is, we should know if all 8,000 of them are delivering, if they are need. You said it right, 60 percent of them are veterans.

We have got good folks working there, but my concern of this is, if someone retires or leaves, do you have the capacity to rehire them? Are all the things that go into, accountability is more than just getting rid of people, it is filling the right people in the right jobs to deliver to veterans. So we take that seriously. I thank the Chairman for, what I consider, a very important—and I have to tell you, we are at a different spot than we have been in a while in terms of where this is headed, and that is good.

The CHAIRMAN. Thank the gentleman for yielding. And, again, thank the panel for you all for being here today.

And I think just the closing comments I have, that essentially all of these hearings are going to be based on providing the highest quality of health care we can for our veterans. Having them receive

the benefits in a timely fashion that they have earned.

And to do that, I think the absolute key, Mr. Thomas, is the seat you are in. If you can't process claims, or if you can't process, we can't build a network to see our patients, our veterans, outside the VA unless we are paying the providers outside the VA. When you do not make payments, they get out of the system, they can't afford

to stay in it, even though they may want to.

And I have said this once, I have said it 50 times here, I did not like the number they wrote on the check, Medicare wrote on it, but they wrote the check, and at the end of the month you got paid. So I think that is one of the things we have to do. I think providing that network out there without the information you get and share

with us, cannot be done.

And I think the other things that were brought up today are incredibly important about centralizing to the cloud where you have accessibility to the information. What Dr. Lee is saying, look there is a doctor that is going to be in the emergency room at 3:00 a.m. this morning seeing somebody they do not have any information on. That is hard.

You do not make the best decisions. If you can get that information timely, you can reduce the number of tests, provide better care. So what you do is critically important for the whole function of the VA system. And I think it can be done more efficiently and

cheaper.

I know that our next hearing is going to be with the Secretary, and it will have to do with the Choice Program, and how we reintroduce that. But I really believe what you are doing with the technology piece is centerpiece. And it sounds to me like-and we will get better numbers going forward—there maybe not enough, but a significant amount of money in the budget that can be saved with an off-the-shelf program that does all that to actually fund it. Or fund a significant part of it. And we will get into that in more

But I do want to wish you, Mr. Thomas, thank you for the great work you are doing, and with the next assistant secretary, great success, and a long tenure also, so we can keep somebody in the spot a while.

I ask unanimous consent that all Members have five legislative days which to revise and extend their remarks, and include extraneous materials.

Without objection, so ordered.

And thank the witnesses. No further witnesses. Meeting is adjourned. $\,$

[Whereupon, at 11:41 a.m., the Committee and Subcommittees were adjourned.]

APPENDIX

Prepared Statement of Mr. Rob C. Thomas, II

Good Morning, Chairman Roe, Ranking Member Walz, and distinguished members of the Committee. Thank you for the opportunity to discuss the progress that VA is making towards modernizing our information technology (IT) infrastructure to provide the best possible service to our Nation's veterans.

I am joined by Dr. Jennifer Lee, Deputy Under Secretary for Health for Policy and Services, in the Veterans Health Administration (VHA), and Mr. Brad Houston, Director of the Office of Business Process Integration in the Veterans Benefits Administration (VBA).

Office of Information and Technology (OI&T) Transformation

In July 2015, a self-assessment of our current state - derived from employee interviews, external reviews, and meetings with oversight bodies - revealed significant internal challenges at OI&T. The assessment presented a clear-eyed analysis of the challenges we faced, which confirmed other indications for a change in direction. It was also an opportunity to evaluate our role at VA, to envision an IT organization that fundamentally changed the way our veterans interface with VA - and empower our business partners to provide industry-leading access, care, services, and benefits for our veterans. It required nothing short of a major turnaround.

Our transformation delivers better services and a better user experience to vet-

erans, and, today, I am pleased to report progress to you not only on our transformation, but also on several major IT initiatives.

We Improved Our Organization

In 2016, we established five critical functions that underpin our vision:

- Enterprise Program Management Office (EPMO) OI&T's new control tower for IT development, provides an enterprise-wide view of all ongoing projects, ac-IT development, provides an enterprise-wide view of all ongoing projects, actively manages cyber risks, and ties project performance to outcomes that directly improve the veteran experience. EPMO manages our biggest IT programs, including the Veterans Health Information Systems and Technology Architecture (VistA) Evolution, Interoperability, the Veterans Benefits Management System, and Medical Appointment Scheduling System (MASS). IT Account Management - After listening to our customers and partners, we formed the IT Account Management (ITAM) organization. This function establishes an integrated, dedicated customer service team at headquarters and in
- formed the IT Account Management (ITAM) organization. This function establishes an integrated, dedicated customer service team at headquarters and in the field with National Cemetery Administration (NCA), VBA, and VHA. ITAMs are the linchpin between OI&T and our business partners; they identify opportunities for improvement and work directly with the Chief Information Officer and EPMO to implement solutions. ITAMs are supported by five Customer Relationship Managers that work at the regional level to gather feedback and monitor outcomes. The ITAM organization can now collect OI&T performance data nationwide, enabling a collaborative approach to issue resolution, change data nationwide, enabling a collaborative approach to issue resolution, change management, and innovation, as well as identifying and refining solutions to meet customer and stakeholder needs.
- Strategic Sourcing To make the most of IT spending, OI&T now focuses on buying existing cutting-edge solutions before building customized solutions. Quality, Compliance and Risk OI&T measures what matters, partners with oversight bodies such as the Office of Management and Budget and the Office of the Inspector General, and links input to outcomes.
- Data Management -OI&T focuses on the collection, protection, and analysis of VA's wealth of data to predict patient needs, deliver specific outcomes, and share information across VA to improve the veteran experience.

Outcomes from Process Changes

We focused on programs and projects that deliver direct value to veterans by eliminating numerous processes, steps, and artifacts to streamline our services and provide faster more efficient care.

- In September 2016, EPMO reached full operational capability, successfully transitioning over 200 projects from Project Management Accountability Software to the Veteran-focused Intake Process (VIP). This transition has delivered an 86 percent on-time delivery rate and an estimated 85 percent project overhead cost avoidance since 2015.
- The Enterprise Cybersecurity Strategy Team (ECST) transformed VA cybersecurity. Accomplishments include reducing users with elevated privileges by 95 percent, remediating 23 million critical and high vulnerabilities, and removing 95 percent of prohibited software from the VA network and systems.

Outcomes from Investing in Our People

Throughout 2016, we focused on our people:

- Results from the September 2016 Employee Engagement Task Force (EETF) survey show positive upticks in every measure of employee satisfaction since our June survey.
- In October 2016, EETF became the Office of Organization Development & Engagement, to make permanent and build upon OI&T's focus on a work culture that is collaborative, diverse, inclusive, and recognition-oriented.

Enterprise Cybersecurity Strategy

Cybersecurity is another principle which underpins everything we develop, test and roll out. This commitment requires us to think enterprise-wide about security holistically. We have dual responsibility to store and protect veterans records, and our strategy addresses both privacy and security.

our strategy addresses both privacy and security.

In 2015, OI&T stood up an ECST to assess and address material weaknesses, and execute a holistic VA cybersecurity strategy in record time. Our strategy goes beyond satisfying statutory and regulatory requirements, creating a proactive security posture. Through the ECST, we have built a transparent, accountable, innovative, and team-oriented organization responsible for delivering an actionable, long-range

ECST Strategy identified eight domains that have shifted VA cybersecurity from a reactive to a proactive posture and set the baseline for how OI&T manages and evaluates the enterprise environment. Those domains are: (1) the medical cyber domain; (2) the governance domain; (3) the application and software development domain; (4) the cybersecurity training and human capital domain; (5) the access control, identification and authentication domain; (6) the operations, telecommunications and network security domain; (7) the security architecture domain; and (8) the privacy domain.

OÎ&T has many accomplishments to show for this tremendous effort. Since we began in 2015, we:

- Achieved 100 percent enforcement of two-factor authorization (2FA) for privileged users;
- Implemented 100 percent 2FA for remote access;
- Increased PIV enforcement from 11 percent to over 80 percent. This includes two breakthrough months when we added more than 200,000 PIV-enforced users in August, and another 111,562 in September 2016;
- Reduced the average days to remediation by 52 percent for critical vulnerabilities and by 52 percent for high vulnerabilities;
- Remediated 92 percent of critical and high medical device vulnerabilities for the first time in VA's history; and
- Achieved 100 percent completion of an automated inventory of medical devices.

In the area of veteran facing systems, VA has recently added new protections for online safety, data protection, and identity management. VA has added a logon feature to vets.gov that is one of the few Federal consumer facing-logon accounts that meets high levels of security guidance and requirements (NIST 800–63 level of assurance 3) for credentialing and identity proofing, which has been mandated for VA and other government agencies.

Our efforts to reduce risk, improve security, and ensure online safety will not end when we address the current material weakness. We will continue to identify opportunities to improve our security posture. Let me turn now to VistA and Interoperability.

Health Care

VistA

VistA was one of the first broadly used Electronic Health Records (EHR) in the United States, and an open source version of VistA is currently available. It has been recognized for effectiveness and is still a high quality EHR used as the primary tool across the country. VA is proud of VistA, but we recognize the need for improvements.

VistA Evolution is the joint VHA and OI&T program for improving the efficiency and quality of veterans' health care by modernizing VA's health information systems, increasing data interoperability with the Department of Defense (DoD) and network care partners, and reducing the time it takes to deploy new health informa-

tion management capabilities.

We will complete the next iteration of the VistA Evolution Program-VistA 4-in fiscal year (FY) 2018, in accordance with the VistA Roadmap and VistA Lifecycle Cost Estimate. VistA 4 will bring improvements in efficiency and interoperability, and will continue VistA's award-winning legacy of providing a safe, efficient health care

platform for providers and veterans.

VistA Evolution funds have enabled critical investments in systems and infrastructure, supporting interoperability, networking and infrastructure sustainment, continuation of legacy systems, and efforts - such as clinical terminology standard ization - that are critical to the maintenance and deployment of the existing and future modernized VistA. This work was critical to maintaining our operational capability for VistA. These investments will also deliver value for veterans and VA providers regardless of whether our path forward is to continue with VistA, shift to a commercial EHR platform as DoD is doing, or some combination of both.

Interoperability

Access to accurate veteran information is one of our core responsibilities. We recognize that a veteran's complete health history is critical to providing seamless, high-quality, integrated care and benefits. Interoperability is the foundation of this capability, as it enables clinicians to provide veterans with the most effective care

and makes relevant clinical data available at the point of care.

Today, our partners in VHA, VBA and DoD share more medical information than any health care organizations in the country, public or private. Hand in hand with our partners in DoD, we have developed and deployed the Joint Legacy Viewer (JLV) across the country. JLV is available to all clinicians in every VA facility in the country. It is a web-based user interface that provides the clinician an intuitive interface to display DoD and VA health care data on a single screen. VA and DoD clinicians can use JLV to access, the health records of veterans, Active Duty, and Reserve Service members from all VA, DoD and enrolled VA external partner facilities where a patient has received care. VA certified VA–DoD interoperability on April 8, 2016, in accordance with section 713(b)(1) of the National Defense Authorization Act for EV2014 (Public Low 113, 66) ization Act for FY2014 (Public Law 113–66).

JLV is not a "screenshot" sharing technology; it organizes medical record data in

a customizable, easy-to-use web-based browser presentation. It provides a patient-centric, rather than facility-centric, view of health records in near realtime. Clinicians are able to make better-informed care decisions with the click of a button. Providers from a variety of specialties have shared positive feedback and user stories proving information can flow seamlessly between DoD and VA. JLV is also available in all VBA Regional Offices, to expedite claims processing. I am pleased to share the following statistics on JLV, as of December 11, 2016:

- There were 203,785 authorized VA health care users;
- 14,274 authorized VA benefits professional users; and
- 2,000,000+ records accessed.

JLV is a critical step in connecting VA and DoD health systems. However, it is a read-only application. Building on the interoperability infrastructure supporting JLV, the Enterprise Health Management Platform (eHMP) will ultimately replace our current read-write point of care application. eHMP is a cornerstone of the VistA Evolution Program, building on the capability for clinically actionable, patient-centric data pioneered by JLV. eHMP will provide a modern, secure, configurable webbased platform that will expand JLV's capabilities. Upon completion, eHMP will offer robust support for veteran-centric health care, team based health care, quality driven health care, and improved access based on clinical need.

Modernization is a process - not an end - and the plan to release VistA 4 in FY2018 will not be the "end" of VA's EHR modernization. VA intends to continue modernizing VA's EHR, beyond VistA 4, with more modern and flexible components.

Integrating new systems with old platforms is a pervasive challenge at VA, and scheduling is an example of this kind of transition. Veteran appointment wait time issues were partly attributed to antiquated scheduling systems.

VSF

VistA Scheduling Enhancements (VSE) will provide critical near-term enhancements. It will improve the appointment scheduling process by providing a modern graphical user interface. It will also result in reduced appointment wait times, improved adherence to industry standards, and elimination of manual processes.

VA's current scheduling application successfully schedules millions of appointments, but it is cumbersome to use; does not have a modern look-and-feel; and does not include functions that can drive improved operational efficiencies. VSE is intuitive to use with a calendar display. The more modern view alone will enhance scheduler's efficiency. Other functions that allow for selection by location, clinic, clinician or specialty, improved ability to find available appointments, a single queue for appointment requests, resource management reporting ,and a more complete view of availability will improve our use of clinical resources to reduce wait times. If approved for national implementation, VSE 1.1 will be deployed March through May 2017, starting in Primary Care.

MASS

In addition to VSE, VA awarded a contract for MASS. MASS is one option in VA's overall strategy to provide state-of-the-art electronic health record, scheduling, workflow management and analytics capabilities to frontline caregivers. MASS could replace the VistA Scheduling application with a resource-based medical appointment scheduling solution that allows VA to monitor demand for patient care, and track VA's capacity to provide such care. VA will evaluate the capabilities provided through the contract alongside enhancements to the current VistA through VSE to determine the most efficient and effective means of improving access to care for Veterans.

Veteran Appointment Request (VAR) Application

In addition to reducing wait times, we are focused on improving the Veteran's experience. We must open our doors wider to allow more direct contact with Veterans through the tools of their choice. To do that, we have developed, through a public-private partnership, a mobile application known as VAR. The software allows established primary care patients to directly and immediately schedule and cancel primary care appointments with their assigned Patient Aligned Care Team provider. The application also allows Veterans to obtain online assistance from a trained VA scheduler in booking both primary care and mental health appointments.

Public Law No: 114-286, Faster Care for Veterans Act of 2016

The Faster Care for Veterans Act of 2016, (Public Law 114–286) requires VA to establish an 18 month pilot program operational in at least three Veterans Integrated Service Networks under which Veterans can use an internet website or mobile application to schedule and confirm medical appointments at VA medical facilities. VA is required to seek to enter into a contract using competitive procedures to provide the scheduling capability identified in the law. VA agrees with the need to provide Veterans with tools to empower them while reducing wait times and improving the Veteran experience. We will work with Congress and the stakeholder community to ensure we meet our shared goals.

Benefits

Veterans Benefits Management System (VBMS)

The ability to quickly and accurately provide to veterans the benefits they have earned has always been a VA goal. Over the last several years, VA has made progress to adjudicate disability compensation claims more quickly and accurately. VBMS serves as the cornerstone of VA's benefits claims processing capability. Since the initial phases of its development, VBMS has become the foundation and platform for automating claims processing across VBA's business lines. Today, VBMS assists VBA with processing billions of dollars in benefits delivery each month for millions of beneficiaries. In partnership with VBA, and with VBMS as the foundation, we have completely reinvented claims intake and evidence management, ensuring everything a veteran provides is immediately digitized and available for claims processing, leading to massive improvement in mail processing time and gathering of evidence. As a result of these efforts, average mail handling time for

VBA personnel to process inbound mail is now only four days, down from 55 days in 2015.

The next phase of progress for VBMS will focus on the veteran experience enabled by an integrated electronic operating environment that will:

- Empower veterans by providing common access points, better access to information for veterans and a more seamless experience when veterans interact with VA.
- Engaging partners through improved data exchange capabilities, automation and information access.
- Enhanced operations through expansion of eFolders capabilities, refined and/or automated business processes, and a more integrated approach to overall benefits delivery.

Examples of specific functionality to be delivered in VBMS in fiscal years 2017 and 2018 include:

- 1. Completion of automation for medical exam requests.
- 2. Providing full access to the claims folder to veterans online.
- 3.Reducing multiple touches by VBA staff and providing better veteran experience, through 'day of discharge' payments for separating Servicemembers.
- 4.Centralizing and automating outbound mail to Veterans, which eliminates manual printing and stuffing of envelopes by VBA employees, allowing those same employees to focus on other claims development activities
- 5. Automating the decision segment for 'routine future' examinations (100,000 claims per year).
 - 6. Automating pension medical expense adjustments (75,000 per year).

VBMS will deliver key functionality that enables quicker, more accurate and integrated claims processing while laying the foundation for future, veteran-centric enterprise business capabilities. By prioritizing this work above other needed functionality, VA will deliver as planned. The system is currently operational with numerous enhancements planned and underway to achieve the full scope of VBMS's planned functionality. Some of these include automated decision support tools and rules-based claims processing. Delivering the full scope of planned VBMS functionality (both VBMS itself and integration with legacy environment) is essential to meeting goals of VBA's modernization of benefits delivery.

Appeals Modernization

As we have made progress in developing and deploying the tools necessary to adjudicate claims, we have also invested in improving technologies used to process and decide appeals of benefit claims. We are currently working to move away from the current process that uses disjointed uncoordinated systems. Appeals modernization is truly an Enterprise-Wide initiative that will have a direct impact on veterans by enabling VA to provide timely and quality appeals decisions, as well as visibility on appeals across the Department.

The goal for appeals modernization is to improve the veteran Experience through a streamlined the end-to-end appeals process. VA will replace outdated technology with modern technology that is easy to use and less expensive to maintain. The new solution, called Caseflow, will replace veterans Appeals Control and Locator System and automate manual processes for reviewing records and drafting appeals decisions

while improving workflows that need to cross organizations.

Under the leadership of the VA Digital Services team, iterative and continuous delivery of usable functionality is being deployed weekly to a limited number of users. The limited release approach allows for improvement before deploying the solution to all users. The core functionality will be fully delivered by end of FY2017. However, in order to more fully address the improvements necessary to reform the current appeals process, legislative action will be necessary.

Legacy Modernization

VA is in a continuous cycle of modernization and upgrading to new technology, new systems and new tools for use by veterans, to improve how we care for them, and how their data is safely managed and operated online. VA is in the process of formalizing a new strategy to modernize legacy systems. The purpose of this approach is to identify and decommission outmoded technology, recapture resources, and re-program freed resources towards priority business needs. The sequencing plan will be integrated into the lifecycle management of VA's IT systems.

The benefits of this strategy are several and agency-wide: VA will maintain a more affordable technology footprint; overall business capabilities will be improved as obsolete equipment is retired; operational performance will also improve in business and technical systems as resources are re-programmed toward current needs.

The EPMO will lead the effort to put this strategy in place. The strategy will:

- Establish a dedicated team to operationalize these capabilities;
- Identify a list of known modernization efforts;
- Develop criteria for what constitutes a legacy system and its associated components:
- Inventory legacy systems, identifying those most critical to business continuity; and
- · Identify early candidates suitable for accelerated decommissioning efforts

VA plans to integrate the legacy modernization strategy with IT Infrastructure Library and existing VIP and OI&T governance processes. There will be a needed training component, as well as change management planning and execution. Looking ahead, VA will integrate full lifecycle cost estimation and analysis into our demand management and intake process.

Other Major Programs

Community Care IT Support is a program of 39 distinct IT projects. These projects collectively address the six pillars needed for an effective VA Care in the Community Program: (1) Eligibility; (2) Referrals and Authorization; (3) Care Coordination; (4) Community Care Network; (5) Provider Payment; and (6) Customer Experience. The program is currently on track with a strong program management team. It is carefully scrutinized bi-weekly by a joint VHA/OI&T executive oversight board and is on the VHA/OI&T FY2017 Joint Business Plan as a high impact program requiring close executive oversight and involvement/intervention should issues arise.

Financial Systems is embarking on a multi-phase project to migrate VA to a shared service provider. The current first phase of the project is focused on accounting and acquisitions. The goals of this effort are to maintain a clean opinion, eliminate material weaknesses, eliminate improper payments, and move to an environment where clean data can provide realtime business intelligence.

Conclusion

OI&T is transforming. Evolving veterans' needs have driven us to change and adapt. Through the MyVA initiative, VA is modernizing its culture, processes, and capabilities to put veterans first, prioritize resources, and give our team the opportunity to make a real difference in veterans' lives. This momentum is driving us to transform OI&T on behalf of our customers, partners, our employees, and veterans. OI&T will continue to make bold reforms that will shape how we deliver IT services and health ears in the future as well as improve the experiences of veterans.

Ol&T will continue to make bold reforms that will shape how we deliver IT services and health care in the future, as well as improve the experiences of veterans, community providers, and VA staff. Throughout this transformation, our number one priority has and will always be the veteran - ensuring a safe and secure environment for their information and improving their experience is our goal.

Despite the progress, we cannot do it alone. We need the continued collaboration with our stabled community, veterans Veterans Service Organizations, public

Despite the progress, we cannot do it alone. We need the continued collaboration with our stakeholder community - veterans, Veterans Service Organizations, public and private organizations, and Congress. We believe your support has been critical to achieving our successes with developing claims processing tools and enabling interoperability and will be critical towards giving our clinicians the tools they need. Your support for the upcoming FY2018 budget will get us closer to that future. We are committed to serving veterans and look forward to working closely with you on their behalf.

This concludes my testimony, and I am happy to answer your questions.

Prepared Statement of David A. Powner

VETERANS AFFAIRS INFORMATION TECHNOLOGY

Management Attention Needed to Improve Critical System Modernizations, Consolidate Data Centers, and Retire Legacy Systems

Information Technology Management Issues

Chairman Roe, Ranking Member Walz, and Members of the Committee:

Thank you for the opportunity to participate in today's hearing on the information technology (IT) modernization projects and programs at the Department of Veterans Affairs (VA). As you know, the use of IT is crucial to helping VA effectively serve the Nation's veterans and, each year, the department spends billions of dollars on its information systems and assets.

its information systems and assets. However, over many years, VA has experienced challenges in managing its IT projects and programs, raising questions about the efficiency and effectiveness of its operations and its ability to deliver intended outcomes needed to help advance the department's mission. These challenges have spanned a number of critical initiatives related to sharing electronic health record data and developing major systems, in addition to improving the efficiency of operations by closing and optimizing data centers and decommissioning antiquated legacy systems. We have previously reported on these and other IT management challenges at the department.

At your request, my testimony today summarizes findings from a number of our reports that addressed VA's efforts toward exchanging electronic health records with the Department of Defense (DoD) and highlighted IT challenges that have contributed to our designation of VA health care as a high-risk area. In addition, it discusses our prior work on the department's development and use of its benefits claims processing system, the Veterans Benefits Management System (VBMS), as well as our recent reports that addressed VA's data center consolidation and legacy systems. ²

In developing this testimony, we relied on our previous reports, as well as information provided by the department on its actions in response to our previous recommendations. The reports cited throughout this statement include detailed information on the scope and methodology for our reviews.

The work upon which this statement is based was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

VA's mission is to promote the health, welfare, and dignity of all veterans in recognition of their service to the Nation by ensuring that they receive medical care, benefits, social support, and lasting memorials. VA is the second largest Federal department and, in addition to its central office located in Washington, D.C., has field offices throughout the United States, as well as the U.S. territories and the Philippines

The department's three major components-the Veterans Health Administration (VHA), the Veterans Benefits Administration (VBA), and the National Cemetery Administration (NCA)-are primarily responsible for carrying out its mission. More specifically, VHA provides health care services, including primary care and specialized care, and it performs research and development to improve veterans' needs. VBA provides a variety of benefits to veterans and their families, including disability compensation, educational opportunities, assistance with home ownership, and life insurance. Further, NCA provides burial and memorial benefits to veterans and their families.

Collectively, the three components rely on approximately 340,000 employees to provide services and benefits. These employees work in VA's Washington, D.C. headquarters, as well as 167 medical centers, approximately 800 community-based outpatient clinics, 300 veterans centers, 56 regional offices, and 131 national and 90 state or tribal cemeteries situated throughout the Nation.

VA Relies Extensively on IT

The use of IT is critically important to VA's efforts to provide benefits and services to veterans. As such, the department operates and maintains an IT infrastructure

¹GAO, Electronic Health Records: Outcome-Oriented Metrics and Goals Needed to Gauge DoD's and VA's Progress in Achieving Interoperability, GAO 15 530 (Washington, D.C.: Aug. 13, 2015) and High Risk Series: An Update, GAO–15–290 (Washington, D.C.: Feb. 11, 2015).

²GAO, Veterans Benefits Management System: Ongoing Development and Implementation Can Be Improved; Goals Are Needed to Promote Increased User Satisfaction, GAO 15 582 (Washington, D.C.: Sept. 1, 2015); Data Center Consolidation: Agencies Making Progress, but Planned Savings Goals Need to Be Established, GAO–16–323 (Washington, D.C.: Mar. 3, 2016); and Information Technology: Federal Agencies Need to Address Aging Legacy Systems, GAO–16–468 (Washington, D.C.: May 25, 2016).

that is intended to provide the backbone necessary to meet the day-to-day operational needs of its medical centers, veteran-facing systems, benefits delivery systems, memorial services, and all other systems supporting the department's mission. The infrastructure is to provide for data storage, transmission, and communications requirements necessary to ensure the delivery of reliable, available, and responsive

support to all VA staff offices and administration customers, as well as veterans.

Toward this end, the department operates approximately 240 information systems, manages approximately 314,000 desktop computers and 30,000 laptops, and administers nearly 460,000 network user accounts for employees and contractors to facilitate providing benefits and health care to veterans. These systems are used for the determination of benefits, benefits claims processing, patient admission to hospitals and clinics, and access to health records, among other services.

VHA's systems provide capabilities to establish and maintain electronic health records that health care providers and other clinical staff use to view patient information in inpatient, outpatient, and long-term care settings. The department's health information system- the Veterans Health Information Systems and Technology Architecture (VistA)-serves an essential role in helping the department to fulfill its health care delivery mission. Specifically, VistA is an integrated medical information system that was developed in-house by the department's clinicians and IT personnel, and has been in operation since the early 1980s. 3 The system consists of 104 separate computer applications, including 56 health provider applications; 19 management and financial applications; 8 registration, enrollment, and eligibility applications; 5 health data applications; and 3 information and education applications. Within VistA, an application called the Computerized Patient Record System enables the department to create and manage an individual electronic health record for each VA patient.

VBA relies on VBMS to collect and store information such as military service records, medical examinations, and treatment records from VA, DoD, and private medical service providers. In 2014, VA issued its 6-year strategic plan, which emphasizes the department's goal of increasing veterans' access to benefits and services, eliminating the disability claims backlog, and ending veteran homelessness. According to the plan, the department intends to improve access to benefits and services through the use of enhanced technology to provide veterans with access to more effective care management. The plan also calls for VA to eliminate the disability claims backlog by fully implementing an electronic claims process that is intended to reduce processing time and increase accuracy. Further, the department has an initiative under way that provides services, such as health care, housing assistance, and job training, to end veteran homelessness. Toward this end, VA is working with other agencies, such as the Department of Health and Human Services, to implement more coordinated data entry systems to streamline and facilitate access to appropriate housing and services.

VA reported spending about \$3.9 billion to improve and maintain its IT resources

**N reported spending about \$5.9 billion to improve and maintain its 17 resources in fiscal year 2015. Specifically, the department reported spending approximately \$548 million on new systems development efforts, approximately \$2.3 billion on maintaining existing systems, and approximately \$1 billion on payroll and administration. For fiscal year 2016, the department received appropriations of about \$4.1 billion for IT—about \$505 million on new systems development, about \$2.5 billion on maintaining existing systems, and about \$1.1 billion on payroll and administra-

For fiscal year 2017, the department's budget request included nearly \$4.3 billion for IT. The department requested approximately \$471 million for new systems development efforts, approximately \$2.5 billion for maintaining existing systems, and approximately \$1.3 billion for payroll and administration. In addition, in its 2017 budget submission, the department requested appropriations to make improvements in a number of areas, including:

- · veterans' access to health care, to include enhancing health care-related systems, standardizing immunization data, and expanding telehealth services (\$186.7 million);
- veterans' access to benefits by modernizing systems supporting benefits delivery, such as VBMS and the Veterans Services Network (\$236.3 million);
- veterans' experiences with VA by focusing on integrated service delivery and streamlined identification processes (\$171.3 million);
- VA employees' experiences by enhancing internal IT systems (\$13 million); and

³VistA began operation in 1983 as the Decentralized Hospital Computer Program. In 1996, the name of the system was changed to VistA.

• information security, including implementing strong authentication, ensuring repeatable processes and procedures, adopting modern technology, and enhancing the detection of cyber vulnerabilities and protection from cyber threats (\$370.1 million).

VA Has a Long History of Working to Share Electronic Health Records with DoD

Electronic health records are particularly crucial for optimizing the health care provided to veterans, many of whom may have health records residing at multiple medical facilities within and outside the United States. Taking steps toward inter-operability-that is, collecting, storing, retrieving, and transferring veterans' health records electronically-is significant to improving the quality and efficiency of care. One of the goals of interoperability is to ensure that patients' electronic health information is available from provider to provider, regardless of where it originated or resides.

Since 1998, VA has undertaken a patchwork of initiatives with DoD to allow the departments' health information systems to exchange information and increase interoperability. ⁴ Among others, these have included initiatives to share viewable data in the two departments' existing (legacy) systems, link and share computable data between the departments' updated heath data repositories, and jointly develop a single integrated system that would be used by both departments. Table 1 summarizes a number of these key initiatives.

Initiative	Year begun	Description
Government Computer-Based Patient Record	1998	This interface was expected to compile requested patient health information in a temporary, "virtual" record that could be displayed on a user's computer screen
Federal Health Information Exchange	2002	The Government Computer-Based Patient Record initiative was narrowed in scope to focus on enabling the Department of Defense (DoD) to electronically transfer servicemembers' health information to the Department of Veterans Affairs (VA) upon their separation from active duty. The resulting initiative, completed in 2004, was renamed the Federal Health Information Exchange. This capability is currently used by the departments to transfer data from DoD to VA.
Bidirectional Health Information Exchange	2004	This capability provides clinicians at both departments with viewable access to records on shared patients. It is currently used by VA and DoD to view data stored in both departments' heath information systems
Clinical Data Repository/Health Data Repository Initiative	2004	This interface links DoD's Clinical Data Repository and VA's Health Data Repository to achieve a two- way exchange of health information
Virtual Lifetime Electronic Record	2009	To streamline the transition of electronic medical, benefits, and administrative information between the departments, this initiative enables access to electronic records for servicemembers as they transition from military to veteran status and throughout their lives. It also expands the departments' health information-sharing capabilities by enabling access to private-sector health data

⁴DoD uses a separate electronic health record system, the Armed Forces Health Longitudinal Technology Application, which consists of multiple legacy medical information systems developed from customized commercial software applications.

Initiative	Year begun	Description
Joint Federal Health Care Center	2010	The Captain James A. Lovell Federal Health Care Center was a 5-year demonstration project to integrate DoD and VA facilities in the North Chicago, Illinois, area. It is the first integrated Federal health care center for use by beneficiaries of both departments, with an integrated DoD—VA workforce, a joint funding source, and a single line of governance

Source: GAO summary of prior work and department documentation

In addition to the initiatives mentioned in table 1, VA has worked in conjunction with DoD to respond to provisions in the National Defense Authorization Act for Fiscal Year 2008.⁵ This act required the departments to jointly develop and implement fully interoperable electronic health record systems or capabilities in 2009. Yet, even as the departments undertook numerous interoperability and modernization initiatives, they faced significant challenges and slow progress. We have reported, for example, that the two departments' success in identifying and implementing joint IT solutions has been hindered by an inability to articulate explicit plans, goals, and timeframes for meeting their common health IT needs. 6

In March 2011, the secretaries of VA and DoD announced that they would develop a new, joint integrated electronic health record system (referred to as iEHR). This was intended to replace the departments' separate systems with a single common system, thus, sidestepping many of the challenges they had previously encountered in trying to achieve interoperability. However, in February 2013, about 2 years after initiating iEHR, the secretaries announced that the departments were abandoning plans to develop a joint system, due to concerns about the program's cost, schedule, and ability to meet deadlines. The Interagency Program Office (IPO), put in place to be accountable for VA's and DoD's efforts to achieve interoperability, reported spending about \$564 million on iEHR between October 2011 and June 2013. Following the termination of the iEHR initiative, VA and DoD moved forward with plans to separately modernize their respective electronic health record systems.

In light of VA and DoD not implementing a solution that allowed for the seamless electronic sharing of health care data, the National Defense Authorization Act for Fiscal Year 2014 ⁷ included requirements pertaining to the implementation, design, and planning for interoperability between the departments' electronic health record systems. Among other actions, provisions in the act directed each department to (1) ensure that all health care data contained in their systems (VA's VistA and DoD's Armed Forces Health Longitudinal Technology Application, referred to as AHLTA) complied with national standards and were computable in realtime by October 1, 2014; and (2) deploy modernized electronic health record software to support clinicians while ensuring full standards-based interoperability by December 31, 2016.

In August 2015, we reported that VA, in conjunction with DoD, had engaged in several near-term efforts focused on expanding interoperability between their existing electronic health record systems. For example, the departments had analyzed data related to 25 "domains" identified by the Interagency Clinical Informatics Board's and mapped health data in their existing systems to standards identified by the IPO. The departments also had expanded the functionality of their Joint Legacy Viewer-a tool that allows clinicians to view certain health care data from both departments.

More recently, in April 2016, VA and DoD certified that all health care data in their systems complied with national standards and were computable in realtime. However, VA acknowledged that it did not expect to complete a number of key activities related to its electronic health record system until sometime after the December 31, 2016, statutory deadline for deploying modernized electronic health

⁵ Pub. L. No. 110–181, § 1635, 122 Stat. 3, 460–463 (2008).

⁶ GAO, Electronic Health Records: DoD and VA Should Remove Barriers and Improve Efforts to Meet Their Common System Needs, GAO–11–265 (Washington, D.C.: Feb. 2, 2011); Electronic to Meet Their Common System Needs, GAO–11–265 (Washington, D.C.: Feb. 2, 2011); Electronic Health Records: DoD and VA Interoperability Effort are Ongoing; Program Office Needs to Implement Recommended Improvement, GAO–10–332 (Washington, D.C.: Jan. 28, 2010); Electronic Health Records: DoD and VA Have Increased Their Sharing of Health Information, but More Work Remains, GAO–08–954, (Washington, D.C.: July 28, 2008); and Computer-Based Patient Records: Better Planning and Oversight By VA, DoD, and IHS Would Enhance Health Data Sharing, GAO–01–459 (Washington, D.C.: Apr. 30, 2001).

7 Pub. L. No. 113–66, Div. A, Title VII, § 713, 127 Stat. 672, 794–798 (Dec. 26, 2013).

8 This board is made up of senior clinical leaders who represent the user community and establish priorities for interoperable health data between VA and DoD.

record software with interoperability. Specifically, the department stated that deployment of a modernized VistA system at all locations and for all users is not planned until 2018.9

VA's IT Organization Has Undergone Recent Changes

VA's recently departed Chief Information Officer (CIO) initiated an effort to transform the focus and functions of the Office of Information and Technology (OI&T), which is responsible for providing IT services across VA and managing the department's IT assets and resources. The CIO's transformation strategy, initiated in January 2016, called for OI&T to focus on stabilizing and streamlining processes, mitigating weaknesses highlighted in GAO assessments, and improving outcomes by in-

stitutionalizing a new set of IT management capabilities.

As part of this transformation, the CIO began transitioning the oversight of and accountability for IT projects to a new project management process called the Veteran-focused Integration Process in January 2016, in an effort to streamline systems development and the delivery of new IT capabilities. The CIO established five new functions within OI&T:

• The enterprise program management office is to serve as OI&T's portfolio management and project tracking organization.

The account management function is to be responsible for managing the IT needs of VA's major components.

The quality and compliance function is to be responsible for establishing policy governance and standards and ensuring adherence to them.

The data management organization is expected to improve both service delivery

and the veteran experience by engaging with data stewards to ensure the accuracy and security of the information collected by VA.

• The strategic sourcing function is to be responsible for establishing an approach to fulfilling the department's requirements with vendors that provide solutions for those requirements, managing vendor selection, tracking vendor performance and contract deliverables, and sharing insights on new technologies and capabilities to improve the workforce knowledge base.

According to the former CIO, the transformation strategy was completed in the first quarter of fiscal year 2017.

FITARA Requires VA to Address Data Center Consolidation

Recognizing the importance of reforming the government-wide management of IT, Federal Information Technology Acquisition Reform provisions (commonly referred to as FITARA) were enacted in December 2014 as part of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015. 10 The law was intended to improve covered agencies' acquisitions of IT and further enable Congress to monitor agencies' progress and hold them accountable for reducing duplication and achieving cost savings. FITARA includes specific requirements related to seven areas, including data center consolidation. 11

Under FITARA, VA and other covered agencies are required to provide OMB with a data center inventory, a strategy for consolidating and optimizing the data centers (to include planned cost savings), and quarterly updates on progress made. FITARA also requires OMB to develop a goal for how much is to be saved through this initiative, and provide annual reports on cost savings achieved.

In addition, in August 2016, OMB released guidance intended to, among other things, define a framework for achieving the data center consolidation and optimization requirements of FITARA. ¹² The guidance includes requirements for covered agencies such as VA to:

 maintain complete inventories of all data center facilities owned, operated, or maintained by or on behalf of the agency;

⁹ Full operational capability of DoD's modernized health information system is not planned to occur until the end of fiscal year 2022.

¹⁰ Pub. L. No. 113–291, div. A, title VIII, subtitle D, 128 Stat. 3292, 3438–3450 (Dec. 19,

¹¹ FITARA also includes requirements for covered agencies to enhance the transparency and improve risk management of IT investments, enhance CIO authority, annually review IT investment portfolios, expand training and use of IT acquisition cadres, and compare their purchases of services and supplies to what is offered under the Federal strategic sourcing initiative that

the General Services Administration is to develop.

12 OMB, Data Center Optimization Initiative (DCOI), Memorandum M-16-19 (Washington D.C.: Aug. 1, 2016).

- develop cost savings targets due to consolidation and optimization for fiscal years 2016 through 2018 and report any actual realized cost savings; and
- measure progress toward meeting optimization metrics on a quarterly basis.

The guidance also directs each covered agency to develop a data center consolidation and optimization strategic plan that defines the agency's data center strategy for fiscal years 2016, 2017, and 2018. This strategy is to include, among other things, a statement from the agency CIO stating whether the agency has complied with all data center reporting requirements in FITARA. Further, the guidance indicates that OMB is to maintain a public dashboard that will display consolidation-related costs savings and optimization performance information for the agencies.

VA Has Begun to Implement VistA Modernization Plans amid Concerns about Its Long-term Approach, Metrics, and Duplication

Although VA has proceeded with its program to modernize VistA (known as VistA Evolution), the department's long-term plan for meeting its electronic health record system needs beyond fiscal year 2018 is uncertain. The department's current VistA modernization approach is reflected in an interoperability plan and a roadmap describing functional capabilities to be deployed through fiscal year 2018. Specifically, these documents describe the department's approach for modernizing its existing electronic health record system through the VistA Evolution program, while helping to facilitate interoperability with DoD's system and the private sector. For example, the VA Interoperability Plan, issued in June 2014, describes activities intended to improve VistA's technical interoperability, ¹³ such as standardizing the VistA software across the department to simplify sharing data.

In addition, the VistA 4 Roadmap, which further describes VA's plan for modernizing the system, identifies four sets of functional capabilities that are expected to be incrementally deployed during fiscal years 2014 through 2018 to modernize the VistA system and enhance interoperability. According to the roadmap, the first set of capabilities was delivered by the end of September 2014 and included access to the Joint Legacy Viewer and a foundation for future functionality, such as an enhanced graphical user interface.

Another interoperable capability that is expected to be incrementally delivered over the course of the VistA modernization program is the enterprise health management platform. ¹⁴ The department has stated that this platform is expected to provide clinicians with a customizable view of a health record that can integrate data from VA, DoD, and third-party providers. Also, when fully deployed, VA expects the enterprise health management platform to replace the Joint Legacy Viewer.

However, an independent assessment of health IT at VA questioned whether the VistA Evolution program to modernize the electronic health record system can overcome a variety of risks and technical issues that have plagued prior VA initiatives of similar size and complexity. ¹⁵ For example, the study raised questions regarding the lack of any clear advances made during the past decade and the increasing amount of time needed for VA to release new health IT capabilities. Given the concerns identified, the study recommended that VA assess the cost versus benefits of various alternatives for delivering the modernized capabilities, such as commercially available off-the-shelf electronic health record systems, open source systems, and the continued development of VistA.

In speaking about this matter, VA's former Under Secretary for Health asserted that the department will follow through on its plans to complete the VistA Evolution program in fiscal year 2018. However, the former CIO also indicated that the department would reconsider how best to meet its electronic health record system needs beyond fiscal year 2018. As such, VA's approach to addressing its electronic health record system needs remains uncertain.

VA, Together with DoD and the Interagency Program Office, Have Not Developed Goals and Metrics for Assessing Interoperability

¹³Technical interoperability refers to the ability of multiple systems to be able to transmit data back and forth.

¹⁴The enterprise health management platform is a graphical user interface that is intended to present patient information to support medical care to the veteran from a standardized set of information, regardless of where the veteran receives care. Clinical information captured at the point of care is made available to all authorized providers across the enterprise.

of information, regardless of where the veteran receives care. Clinical information captured at the point of care is made available to all authorized providers across the enterprise.

15 MITRE Corporation, Independent Assessment of the Health Care Delivery Systems and Management Processes of the Department of Veterans Affairs, Volume 1: Integrated Report (Washington, D.C.: Sept. 1, 2015). This assessment was conducted in response to a requirement in the Veterans Access, Choice, and Accountability Act of 2014, Pub. L. No.113–146, § 201, 128 Stat. 1754, 1769 (Aug. 7, 2014).

Beyond modernizing VistA, VA has undertaken numerous initiatives with DoD that were intended to advance electronic health record interoperability between the two departments. Yet, a significant concern is that these departments have not identified outcome-oriented goals and metrics to clearly define what they aim to achieve from their interoperability efforts, and the value and benefits these efforts are expected to yield. As we have stressed in our prior work and guidance, ¹⁶ assessing the performance of a program should include measuring its outcomes in terms of the results of products or services. In this case, such outcomes could include improvements in the quality of health care or clinician satisfaction. Establishing outcome-oriented goals and metrics is essential to determining whether a program is delivering value.

The IPO is responsible for monitoring and reporting on VA's and DoD's progress in achieving interoperability and coordinating with the departments to ensure that these efforts enhance health care services. Toward this end, the office issued guidance that identified a variety of process-oriented metrics to be tracked, such as the percentage of health data domains that have been mapped to national standards. The guidance also identified metrics to be reported that relate to tracking the amounts of certain types of data being exchanged between the departments, using existing capabilities. This would include, for example, laboratory reports transferred from DoD to VA via the Federal Health Information Exchange and patient queries submitted by providers through the Bidirectional Health Information Exchange.

Nevertheless, in our August 2015 report, we noted that the IPO had not specified outcome-oriented metrics and goals that could be used to gauge the impact of the interoperable health record capabilities on the departments' health care services. At that time, the acting director of the IPO stated that the office was working to identify metrics that would be more meaningful, such as metrics on the quality of a user's experience or on improvements in health outcomes. However, the office had not established a timeframe for completing the outcome-oriented metrics and incorporating them into the office's guidance.

In the report, we stressed that using an effective outcome-based approach could provide the two departments with a more accurate picture of their progress toward achieving interoperability, and the value and benefits generated. Accordingly, we recommended that the departments, working with the IPO, establish a timeframe for identifying outcome-oriented metrics; define related goals as a basis for determining the extent to which the departments' modernized electronic health record systems are achieving interoperability; and update IPO guidance accordingly.

Both departments concurred with our recommendations. Further, since that time, VA has established a performance architecture program that has begun to define an approach for identifying outcome-oriented metrics focused on health outcomes in selected clinical areas, and it also has begun to establish baseline measurements. We intend to continue monitoring the departments' efforts to determine how these metrics define and measure the results achieved by interoperability between the departments.

VA's Plan to Modernize VistA Raises Concern about Duplication with DoD's Electronic Health Record System Acquisition

VA has moved forward with modernizing VistA despite concerns that doing so is potentially duplicative with DoD's acquisition of a commercially available electronic health record system. Specifically, VA took this course of action even though it has many health care business needs in common with DoD. For example, in May 2010, both departments issued a report on medical IT to congressional Committees that identified 10 areas-inpatient documentation, outpatient documentation, pharmacy, laboratory, order entry and management, scheduling, imaging and radiology, third-party billing, registration, and data sharing-in which the departments have common business needs. ¹⁷ Further, the results of a 2008 consultant's study pointed out that

¹⁶ GAO, Electronic Health Record Programs: Participation Has Increased, but Action Needed to Achieve Goals, Including Improved Quality of Care, GAO-14-207 (Washington, D.C.: Mar. 6, 2014); Designing Evaluations: 2012 Revision, GAO-12-208G (Washington, D.C.: Jan. 31, 2012); Performance Measurement and Evaluation: Definitions and Relationships, GAO-11-646SP (Washington, D.C.: May 2, 2011); and Executive Guide: Effectively Implementing the Government Performance and Results Act, GAO/GGD-96-118 (Washington, D.C.: Jun. 1, 1996).

17 Department of Defense and Department of Veterans Affairs Joint Executive Council and Health Executive Council and Parent Veterans Parantment of Defense and Department of Defense and Depa

¹⁷ Department of Defense and Department of Veterans Affairs Joint Executive Council and Health Executive Council, Report to Congress on Department of Defense and Department of Veterans Affairs Medical Information Technology, required by the explanatory statement accompanying the Department of Defense Appropriations Act, 2010 (Public Law 111–118).

over 97 percent of inpatient requirements for electronic health record systems are

common to both departments. 18

We also issued several prior reports regarding the plans for separate systems, in which we noted that the two departments did not substantiate their claims that VA's VistA modernization, together with DoD's acquisition of a new system, would be achieved faster and at less cost than developing a single, joint electronic health record system. Moreover, we noted that the departments' plans to modernize their two separate systems were duplicative and stressed that their decisions to do so

should be justified by comparing the costs and schedules of alternate approaches. ¹⁹ We recommended that VA and DoD develop cost and schedule estimates that would include all elements of their approach (i.e., to modernize both departments' health information systems and establish interoperability between them) and compare them with estimates of the cost and schedule for developing a single, integrated system. If the planned approach for separate systems was projected to cost more or take longer, we recommended that the departments provide a rationale for

pursuing such an approach.

VA, as well as DoD, agreed with our recommendations and stated that an initial comparison had indicated that the approach involving separate systems would be more cost effective. However, as of January 2017, the departments had not provided us with a comparison of the estimated costs of their current and previous approaches. Further, with respect to their assertions that separate systems could be achieved faster, both departments had developed schedules which indicated that their separate modernization efforts are not expected to be completed until after the 2017 planned completion date for the previous single-system approach.

Scheduling System Challenges Contributed to Designation of VA Health Care as High Risk

In February 2015, we designated VA health care as a high-risk area. 20 Among the five broad areas contributing to our determination was the department's IT challenges. ²¹ Of particular concern was the failed modernization of a system to sup-

port the department's outpatient appointment scheduling.

We have previously reported on the department's outpatient appointment scheduling system, which is about 30 years old. Among the problems that VA employees responsible for scheduling appointments have cited, are that the system's commands require the use of many keystrokes, and that it does not allow them to view multiple screens at once. Thus, schedulers must open and close multiple screens to check a provider's or a clinic's full availability when setting up a medical appointment, which is time-consuming and can lead to errors.

In May 2010, we reported that, after spending an estimated \$127 million over 9 years on its outpatient scheduling system modernization project, VA had not implemented any of the planned system's capabilities and was essentially starting over by beginning a new initiative to build or purchase another scheduling system. ²² We also noted that VA had not developed a project plan or schedule for the new initiative, stating that it intended to do so after determining whether to build or purchase

We recommended that the department take six actions to improve key systems development and acquisition processes essential to the second outpatient scheduling system effort. The department generally concurred with our recommendations, but as of May 2016, had not addressed four of the six recommendations. Addressing our recommendations should better position VA to effectively modernize its outpatient scheduling system, and ultimately, improve the quality of care that veterans receive.

¹⁸ Booz Allen Hamilton, Report on the Analysis of Solutions for a Joint DoD-VA Inpatient EHR and Next Steps, Task Order W81XWH-07-F-0353: Joint DoD-VA Inpatient Electronic Health Record (EHR) Project Support, July 2008.

19 GAO, Electronic Health Records: VA and DoD Need to Support Cost and Schedule Claims, Develop Interoperability Plans, and Improve Collaboration, GAO-14-302 (Washington, D.C.: Feb. 27, 2014). See also GAO, 2014 Annual Report: Additional Opportunities to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits, GAO-14-343SP (Washington, D.C.: Apr. 8, 2014), and 2015 Annual Report: Additional Opportunities to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits, GAO-15-404SP (Washington, D.C.: Apr. 14, 2015).

20 GAO, High Risk Series: An Update, GAO-15-290 (Washington, D.C.: Feb. 11, 2015).

²⁰² (GAO, High Kisk Series: An Update, GAO-10-290 (washington, D.C.: red. 11, 2010).

²¹ The remaining four areas are ambiguous policies and inconsistent processes, inadequate oversight and accountability, inadequate training for VA staff, and unclear resource needs and allocation priorities.

²² GAO, Information Technology: Management Improvements Are Essential to VA's Second Effort to Replace Its Outpatient Scheduling System, GAO 10 579 (Washington, D.C.: May 27, 2010)

Efforts to Develop and Use the Veterans Benefits Management System Can Be Improved

In September 2015, we reported that VBA had made progress in developing and implementing VBMS, its system that is to be used for processing disability benefit claims. ²³ Specifically, it had deployed the initial version of the system to all of its regional offices as of June 2013. Further, after initial deployment, VBA continued developing and implementing additional system functionality and enhancements to support the electronic processing of disability compensation claims. As a result, 95 percent of records related to veterans' disability claims were electronic and resided in the system.

Nevertheless, we found that VBMS was not able to fully support disability and pension claims, as well as appeals processing. While the Under Secretary for Benefits stated in March 2013 that the development of the system was expected to be completed in 2015, implementation of functionality to fully support electronic claims processing was delayed beyond 2015. In addition, VBA had not produced a plan that identified when the system would be completed. Accordingly, holding VBA management accountable for meeting a timeframe and demonstrating progress was difficult.

Our report further noted that, even as VBA continued its efforts to complete the development and implementation of VBMS, three areas were in need of increased management attention.

- Cost estimating: The program office did not have a reliable estimate of the cost
 for completing the system. Without such an estimate, VBA management and
 the department's stakeholders had a limited view of the system's future resource needs, and the program risked not having sufficient funding to complete
 development and implementation of the system.
- System availability: Although VBA had improved its performance regarding system availability to users, it had not established system response time goals. Without such goals, users did not have an expectation of the system response times they could anticipate and management did not have an indication of how well the system performed relative to performance goals.
- System defects: While the program had actively managed system defects, a recent system release had included unresolved defects that impacted system performance and users' experiences. Continuing to deploy releases with large numbers of defects that reduced system functionality could have adversely affected users' ability to process disability claims in an efficient manner.

We also noted in the report that VBA had not conducted a customer satisfaction survey that would allow the department to compile data on how users viewed the system's performance, and ultimately, to develop goals for improving the system. Our survey of VBMS users in 2014 found that a majority of them were satisfied with the system, but that decision review officers were considerably less satisfied. ²⁴

However, while the results of our survey provided VBA with data about users' satisfaction with the system, the absence of user satisfaction goals limited the utility of the survey results. Specifically, without having established goals to define user satisfaction, VBA did not have a basis for gauging the success of its efforts to promote satisfaction with the system, or for identifying areas where its efforts to complete development and implementation of the system might need attention.

We recommended, among other actions, that the department develop a plan with a timeframe and a reliable cost estimate for completing VBMS, establish goals for system response time, assess user satisfaction, and establish satisfaction goals to promote improvement. While all of our recommendations currently remain open, the department indicated that it has begun taking steps to address them. For example, the department informed us of its plans to distribute its own survey to measure users' satisfaction with VBMS and to have the results of this survey analyzed by May 2017. In addition, the department has developed draft metrics for measuring the performance of the most commonly executed transactions within VBMS. Continued attention to these important areas can improve VA's efforts to effectively complete the development and implementation of VBMS and, in turn, more effectively support the department's processing of disability benefit claims.

VA's Progress on Data Center Consolidation Lags Behind Other Agencies

²³ GAO-15-582.

²⁴ Decision review officers examine claims decisions and perform an array of duties to resolve issues raised by veterans and their representatives.

We previously reported 25 that VA was among the agencies that had collectively made progress on their data center closure efforts; 26 nevertheless, it had fallen short of OMB's goal for agencies to close 40 percent of all non-core centers by the end of fiscal year 2015. 27

VA's progress toward closing data centers, and realizing the associated cost savings, lagged behind that of most other covered agencies. Specifically, we reported that VA's closure of 20 out of its total of 356 data centers gave the department a 6 percent closure rate through fiscal year 2015-ranking its closure rate 19th lowest out of the 24 agencies we studied. Further, when we took into account the data centers that the department planned to close through fiscal year 2019, VA's 8 percent closure rate ranked 21st lowest out of 24.

With regard to cost savings and avoidance resulting from data center consolidation, our analysis of the department's data identified a total of \$19.1 million in reported cost savings or avoidances from fiscal year 2011 though fiscal year 2015. This equated to only about 0.7 percent of the total of approximately \$2.8 billion that all 24 agencies reported saving or avoiding during the same time period. Also, when we reported on this matter in March 2016, the department had not yet estimated

any planned cost savings or avoidances from further data center consolidation during fiscal years 2017 through 2019.

VA also lagged behind other agencies in making progress toward addressing data center optimization metrics established by OMB in 2014. ²⁸ These metrics, which appears to the content of t plied only to core data centers, addressed several data center optimization areas, including cost per operating system, energy, facility, labor, storage, and virtualization. Further, OMB established a target value for nine metrics that agencies were expected to achieve by the end of fiscal year 2015. As we previously reported, 20 of 22 agencies with core data centers met at least one of OMB's optimization targets.

VA was the only agency that reported meeting none of the nine targets. ²⁹ Accordingly, we recommended that VA take action to improve its progress in the data center optimization areas that we reported as not meeting OMB's established targets. The department agreed with our recommendation and has since stated that approximately 70 data centers have been tentatively identified for potential consolidation by the end of fiscal year 2019. VA is anticipating that, upon completion, these consolidations will improve its performance on OMB's optimization metrics.

VA Plans to Retire Two Legacy Systems That Are Over 50 Years Old

The Federal government spent more than 75 percent of the total amount budgeted for IT for fiscal year 2015 on operations and maintenance, including for the use of legacy IT systems that are becoming increasingly obsolete. VA is among a handful of departments with one or more archaic legacy systems. Specifically, our recent report on legacy systems used by Federal agencies identified 2 of the department's systems as being over 50 years old, and among the 10 oldest investments and/or systems that were reported by 12 selected agencies. 30

- Personnel and Accounting Integrated Data (PAID)-This 53-year old system automates time and attendance for employees, timekeepers, payroll, and supervisors. It is written in Common Business Oriented Language (COBOL), a programming language developed in the late 1950s and early 1960s, and runs on IBM mainframes. VA plans to replace this system with the Human Resources Information System Shared Service Center in 2017.
- Benefits Delivery Network (BDN)-This 51-year old system tracks claims filed by veterans for benefits, eligibility, and dates of death. It is a suite of COBOL mainframe applications. VA has general plans to roll the capabilities of BDN into another system, but has not established a firm date doing so.

 $^{^{25}}$ GAO-16-323.

²⁵ GAO-16-323.
²⁶ The 24 agencies that FITARA requires to participate in the Federal data center consolidation initiative are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, the Treasury, and Veterans Affairs; the Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, National Science Foundation, Nuclear Regulatory Commission, Office of Personnel Management, Small Business Administration, Social Security Administration, and U.S. Agency for International Development.
²⁷ Until August 2016, OMB categorized data centers as "core" (i.e., primary consolidation

Until August 2016, OMB categorized data centers as "core" (i.e., primary consolidation points for agency enterprise IT services) or "non-core." ²⁸ OMB, Memorandum M-14-08.

²⁹The Social Security Administration reported that it did not meet seven of OMB's nine data center optimization targets and that the remaining two targets were not applicable. ³⁰ GAO-16-468.

Ongoing use of antiquated systems such as PAID and BDN contributes to agencies spending a large, and increasing, proportion of their IT budgets on operations and maintenance of systems that have outlived their effectiveness and are consuming resources that outweigh their benefits. Accordingly, we recommended that VA identify and plan to modernize or replace its legacy systems. VA concurred with our recommendation and stated that it plans to retire PAID in 2017 and to retire BDN in 2018.

In conclusion, effective IT management is critical to the performance of VA's mission. However, the department faces challenges in several key areas, including its approach to pursuing electronic health record interoperability with DoD. Specifically, VA's reconsideration of its approach to modernizing VistA raises uncertainty about how it intends to accomplish this important endeavor. VA has not yet defined the extent of interoperability it needs to provide the highest possible quality of care to its patients, as well as how and when the department intends to achieve this extent of interoperability with DoD. Further, VA has not justified the development and operation of an electronic health record system that is separate from DoD's system, even though the departments have common system needs.

The department also faces challenges in modernizing its approximately 30-year old outpatient appointment scheduling system and improving its development and implementation of VBMS. Further, the department has not yet demonstrated expected progress toward consolidating and optimizing the performance of its data centers. In addition, VA's continued operation of two of the oldest legacy IT systems in the Federal government raises concern about the extent to which the department continues to spend funds on IT systems that are no longer effective or cost beneficial. While we recognize that VA has initiated steps to mitigate the IT management weaknesses we have identified, sustained management attention and organizational commitment will be essential to ensuring that the transformation is successful and that the weaknesses are fully addressed.

Chairman Roe, Ranking Member Walz, and Members of the Committee, this completes my prepared statement. I would be pleased to respond to any questions that you may have.

GAO Contact and Staff Acknowledgments

If you or your staffs have any questions about this testimony, please contact David A. Powner at (202) 512–9286 or pownerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony statement. GAO staff who made key contributions to this statement are Mark Bird (Assistant Director), Eric Trout (Analyst in Charge), Rebecca Eyler, Scott Pettis, Priscilla Smith, and Christy Tyson.

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Statements For The Record

BLINDED VETERANS ASSOCIATION

Re: Statement of the Blinded Veterans Association on VA's Failure to Address Compliance with Sections 504/508 of the Rehabilitation Act In Conjunction with Its IT Infrastructure Modernization Program

Dear Congressman Roe and members of the House Committee on Veterans Affairs:

Thank you for granting the Blinded Veterans Association an opportunity to provide a statement for the record of your hearing on Assessing the VA IT landscape: Progress and Challenges on February 7, 2017. In March 2016, we testified before this Committee that we were pleased by the progress that VA had made toward increasing the accessibility of its internal communications with VA employees who have visual disabilities, as well as external communications with visually impaired veterans. While we continue to stand by that previous statement, another year has passed and at the conclusion of that year, we find that there are significant issues that remain unaddressed. VA's responses to our inquiries about the status of their efforts to address these issues throughout the past year have been sporadic at best and largely uninformative. As VA undertakes its much-needed program to update and modernize its information technology infrastructure, we believe it is crucial that resolution of these issues must be considered an essential component of the program, because it is far less costly to build accessibility in at the ground level than it is to retrofit equipment, software, and databases after they have been put in place. As we will discuss below, we believe that failure to address these matters now could also have adverse financial ramifications for VA in the area of benefit claims. VA may be opening itself up to increased liability for payment of large retroactive benefit claims due to inadequate communications with veterans seeking eligibility for benefits.

Two issues are of concern here:

1. What is VA doing to ensure that it has the capacity to send correspondence and other important communications to veterans who have known visual disabilities in formats other than standard print that they can access independently? And

2. What is the status of VA's effort to bring its websites, software, and hardware into compliance with the requirements of Section 508 of the Rehabilitation Act?

BVA was recently informed that A Power point from the Office of Business process integration (OPBI) dated January 29th to 31st, 2013 states "A recent Office of

General Counsel (OGC) memo states VBA notifications are not in compliance with Section 504 of the Rehabilitation Act of 1973". The rationale for the statement is that Section 504 of that Act requires that Federal agencies use accessible formats including but not limited to large print, braille, audio recording, electronic mail (email), or Microsoft Word document, to communicate with beneficiaries and other users of services who have known disabilities that prevent them from reading standard print or PDF images. The OGC had determined that VA had not made a significant effort to develop its capability to provide correspondence or other important documents to veterans whom they knew had disabilities that prevented their reading the types of documents mentioned above. Further, since that time, VA has launched several initiatives to upgrade its databases, including those maintained by both VHA and VBA. We have been advised that the goal is to enhance the agencies' ability to gather additional information about the needs and other vital characteristics of veterans, so that services and benefits can be delivered in a more efficient and timely manner. However, there is no indication that these upgrades include data fields and other design features that would enable either VHA or VBA to gather and maintain information about a veteran's need for information in an alternate accessible format. Neither is there any indication that VA is seeking to build its ca-

pacity to provide materials to veterans in such formats if requested.

In October 2009, the US District Court for the Northern District of California found the Social Security Administration (SSA) out of compliance with Sec. 504 of the Rehabilitation Act and Ordered that agency to begin allowing beneficiaries whom the agency knew were blind to request letters and other communications about benefits be sent to them in accessible formats. The agency was further ordered to make such upgrades to its equipment, programs, and services as were necessary to enable them to provide information in such formats. The court also said that once sufficient time had passed to allow the specified upgrades to be put in place, no social security benefits may be reduced or terminated to any individual shown in the SSA records to be blind or visually impaired (or whose authorized payee is shown to be blind or visually impaired) unless such person was first provided with the notice in an alternative format (either Braille or a navigable Microsoft Word document). The VA, like SSA, has a significant number of beneficiaries, and users of medical services, who are unable to read print or view images due to blindness, and, also like SSA, VA currently knows who many, if not most, of those individuals are. In addition to the legal basis for urging VA to act on this matter and follow SSA's lead, there are health and safety considerations that make it wise for VA to improve the accessibility of its communications. Veterans with visual impairments can suffer life-threatening injury as a result of their inability to read items like discharge instructions, or the warnings and lists of side effects that accompany prescriptions.

Note also the language in Clarke v. Nicholson, 21 Vet.App. 130, 133 (2007), if a regional office (RO) decides a claim but fails to notify the claimant of the decision, the claim remains open, legally, even if the RO clears the corresponding end product (EP). Under such circumstances, if VA denied entitlement to a benefit, failed to notify the claimant of the denial, and then granted entitlement to the same benefit years later, the claimant might be entitled to benefits retroactive to the initial date of claim, because the decision on the initial claim never became final.

By failing to comply with 504 and 508 by insuring that information contained in correspondence and on VA websites is available in accessible formats, the VA may find it is liable to reopen thousands of cases, thus increasing the claims caseload and potentially requiring payment of large retroactive payments.

Software that will enable VA personnel to convert material into accessible alternative formats is currently and readily available to the VA. It is also approved for use on the Department's system through the Technical Reference Manual(TRM) which regulates VA software. We believe it is imperative that implementation begin immediately.

With regard to the VA's progress in addressing issues related to compliance with Sec. 508, BVA's specific outstanding concerns include lack of a timeline for the replacement of outdated Legacy Systems that are not compatible with adaptive software used by VA employees who are blind or with versions of software that allow them to work as productively as their peers using later versions of the systems, as well as kiosks and VBMS documents which are not accessible to blind veterans who rely on the VA for their medical care. We urge this Committee to hold the VA accountable for insuring that its information technologies and websites are designed to provide VA with the capacity to disseminate information in a manner that makes it accessible to both department employees who have visual impairments and need information in order to serve veterans, and to those among our Nation's veterans who have sacrificed their sight in service to our Nation.

In order to demonstrate to you one example of the means that are currently available to accomplish the objectives discussed above, we have included a "Voiceye" bar code on the upper right-hand corner of this document. The Voiceye app is currently available for use on Windows, iOS and Android devices and can be downloaded from the various App Stores. It allows anyone to download the entire text of a document such as this onto a mobile device and review it anywhere. You will find this adaptive software for the blind, which makes documents accessible on mobile devices, is efficient for both blind and sighted individuals who want to scan and review a document on the go. We thought that members and staff of this Committee might find it useful to try it out on this document.

Thank you very much for your concern and attention to these issues. We welcome the opportunity to work with you to address them. Please feel free to contact us if you have questions or would like additional information.

Respectfully,

Melanie Brunson Director of Government Relations

DISABLED AMERICAN VETERANS

Mr. Chairman and Members of the Committee:

Thank you for inviting DAV (Disabled American Veterans) to testify on the Department of Veterans Affairs (VA) Information Technology (IT) modernization projects, programs and needs. As you know, DAV is a non-profit veterans service organization comprised of 1.3 million wartime service-disabled veterans that is dedicated to a single purpose: empowering veterans to lead high-quality lives with respect and dignity. Virtually all of our members rely on the VA health care system for some or all of their health care, particularly for specialized treatment related to injuries and illnesses they incurred in service to the Nation.

INFORMATION SECURITY

In order for veterans to access and utilize VA benefits and services, we are required to provide and sign over control of personal information to VA. But over the last decade, challenges in VA's information security practices have led to unintended loss of veterans information including exposure of Personally Identifiable Information (PII). Such losses erode our confidence in the Department, may cause some veterans to not engage or disengage and not receive critical services and support they need and have earned.

Under the Federal Information Security Management Act, or FISMA, VA's Office of Inspector General (OIG) is required to assess VA's information security programs, procedures and practices against FISMA requirements, applicable National Institute for Standards and Technology guidelines for information security and risk management, and the annual reporting requirements from the Office of Management and Budget.

In 2012, VA's Office of Information Technology (OIT) launched the Continuous Readiness in Information Security Program (CRISP), a three-pronged approach towards information security, addressing annual reporting requirements and ongoing system security weaknesses, with the goal of transforming how the Department accesses, transfers, and protects information. It is encouraging to see OIG and OIT working collaboratively to identify weaknesses and foster continuous improvements in an environment with shifting priorities, changing requirements and creating new objectives.

Meeting information security in such a complex environment among inter and intra-agencies takes time to mature and show evidence of their effectiveness and we appreciate Congress' supportive and vigilant oversight of the Department efforts in operationalizing its IT Enterprise Strategy to address persistent internal challenges.

MEANINGFUL INTEROPERABILITY

Over the last decade, more veterans are coming to VA at significantly higher rates. To leverage technology and ensure timely and accurate delivery of veterans' benefits and services, VA IT systems must have efficient and meaningful interoperability.

Seamless flow of electronic information from DoD, other government agencies and private organizations is vital to support efficient and accurate processing of dis-

ability, pension and other claims veterans file with Veterans Benefits Administration (VBA). $\hfill \hfill \hfill$

Central to the VBA claims processing is the development of new organizational model and a new IT system, known as the Veterans Benefits Management System (VBMS). Deployed nationally in 2013, VBMS is a web-based electronic claims processing solution that serves as VBA's technology platform for quicker, more accurate processing. Improvement in interagency interoperability are needed and discussed

in more detail in the VA Reform Efforts section below.

For the Veterans Health Administration (VHA), the constant drive to achieve

more cost-effective and high-quality care, meaningful interoperability to facilitate care coordination and effective patient and population health management must remain a high priority for VA and Congress.

The development of the Joint Legacy Viewer as an interim solution is a significant and positive step in providing clinicians in the VHA and DoD real-time access to integrated medical information from VA and service treatment records from DoD. Such an enhancement greatly increases the clinician's ability to use best practices

But a majority of VA's veteran patient population receives care from other Federal But a majority of VA's veteran patient population receives care from other receival health care systems and the private sector. As this Committee is aware, VA is prohibited from sharing health information due to title 38, United States Code, § 7332, except when required in emergencies, without written authorized consent from the patient. This requires legislative relief and DAV recommends Congressional action to amend this section while applying all protections under HIPAA.

It should be noted because that addressing the legislative prohibition will help

It should be noted however that addressing the legislative prohibition will help increase health information sharing and not necessarily interoperability. Gaps in clinical data standards and tailoring of the Veterans Health Information Systems and Technology Architecture (VistA) to meet local VA facility needs is delaying Joint Legacy Viewer (JLV) enhancements to allow other Federal and private health care providers to share information and be available to VA and DoD clinicians through JLV. These same challenges will need to be address when developing a long-term solution to replace JLV.

THE AGING VistA

One of the greatest challenge for VHA is its aging Veterans Health Information Systems and Technology Architecture (VistA), a self-developed public domain software. VistA has software modules for clinical care, financial and infrastructure functions. The Computerized Patient Record System (CPRS)-the primary computer application that VA clinicians' use when treating veteran patients-set the standard for electronic health record (EHR) systems in the United States and has been publicly praised by many independent observers.

VistA is now aging not having received the attention needed to maintain its pioneering status and lags in some areas behind some commercial systems. To modernize VistA, VA introduced VistA Evolution in 2014 as a joint program between VA OIT and VHA to address several challenges in information security and risk

management, business processes, clinical care, patient engagement, etc.

However, VA and VHA have changed direction numerous times since the introduction of VistA Evolution and its reverberations are causing confusion within the Department. Today, as major reforms are being made in VBA and VHA, the agency has still not made a decision on whether it should move forward with VistA or follow the lead of the DoD and procure a commercial EHR system.

As the new Secretary of Veterans Affairs assumes the office, we strongly urge this decision to be one of the first to be made. Whether it is to modernize or replace

decision to be one of the first to be made. Whether it is to modernize or replace VistA, VA should ensure its strategic and operational plan should be the prominence of VistA (the database, systems and applications) were developed in close collaboration between clinicians, programmers, developers and engineers.

The size and scope to modernize VHA's IT infrastructure requires the commitment from all levels of VA leadership and an improved enterprise-level management and governance. Not anymore, In addition, Congress must change how VA IT is currently budgeted by creating a separate VA health care IT account and funded through advanced appropriation.

VA REFORM EFFORTS

IT and Reforming the Claims and Appeals Process

To have efficient claims and appeals processing within VA, records of compensation and pension examinations, those from the DoD, other government agencies and businesses, must flow seamlessly within the electronic environment. Heeding our calls to address outdated and ineffective infrastructure, leadership in the Veterans Benefits Administration (VBA) determined in 2010 that it would be necessary to completely and comprehensively transform and modernize its claims infrastructure and processes. The Secretary of Veterans Affairs established an ambi-

frastructure and processes. The Secretary of Veterans Affairs established an ambitious goal of zero claims pending more than 125 days, and to complete all claims with 98 percent accuracy. These goals are still guiding principles for VBA today. VBA outlined a three-year strategy to achieve these goals.

Central to the VBA claims processing is the development of new organizational model and a new IT system, known as the Veterans Benefits Management System (VBMS). Deployed nationally in 2013, VBMS is a web-based electronic claims processing solution that serves as VBA's technology platform for quicker, more accurate processing. To facilitate more efficient claims processing, VBMS collects and stores a veteran claimant's military service records, medical examinations and treatment records from VA, DoD, other Federal and private sector health care providers.

VBMS also automates much of the adjudication process, improving workflow and

VBMS also automates much of the adjudication process, improving workflow and the quality of disability. New technologies continue to be developed and deployed such as the Stakeholders Enterprise Portal (SEP), which allows stakeholders like DAV to perform our functions as representatives of veterans submitting claims for benefits and services. The National Work Queue (NWQ) is another piece of technology VBA recently deployed that is designed to increase its claims processing efficiency. The NWQ allows VBA to move its work among its 57 VA regional offices to balance its overall workload. The NWQ is still in its infancy and Congress must perform oversight to ensure this technology is functioning as intended to ensure tax power deallors are being used entirelly:

while incremental improvements in VBMS give us greater access and functionality to better serve veterans, their families and survivors, we agree with the Government Accountability Office's recommendation that VBA institute user and customer satisfaction goals for VBMS and conduct satisfaction surveys. However, we recommend these goals should apply to technology based on VBMS and other users and customers such as DAV and other veterans service organizations.

VBMS functionality must be improved for claims and appeals processing. At present, it requires enhancements for the Board of Veterans' Appeals (Board) to process appeals more efficiently. Although a substantial repository for documents, VBMS has been identified to be appeals more efficiently.

VBMS has been identified to be cumbersome in properly evaluating evidence and adjudicating claims in both the claims and appeals processing environments.

Presently, the Board is evaluating and implementing new technologies to replace its workload management system, the Veterans Appeals Control and Locator System (VACOLS). We believe any platform the Board finds best suited to its needs must facilitate seamless cross functionality for work requirements of VBA personnel, DAV, other VSOs and stakeholders involved in the claims and appeals process.

IT and Reforming the VA Health Care System

Access to VA care remains a challenge as the agency is required to provide care to an aging veteran patient population suffering from more chronic conditions with more complex health care needs, address disparities in care for women veterans, and delivering on the expectations of younger veterans in need of services and supports. The Department is expected to provide needed care regardless of where the veteran resides and accomplish its health care mission with significant gaps in its health care workforce, limited authority to acquire and dispose of infrastructure to manage its footprint, and an evolving authority to purchase high quality care from community providers.

Because veterans are unable to receive care from the VA in a timely manner, DAV and our partners in The Independent Budget (VFW and PVA) have proposed creating a high-performing VA health care network comprised of VA, other federal, and community providers to create seamless health care access for enrolled vet-

VHA must have robust state-of-the-art information technology and tools to integrate administrative processes (billing, claims payment, supply chain, infrastructure and workforce) and clinical processes (scheduling, interoperable electronic health record, and patient-centered navigation tools) aligned with VBA and the National Cemetery Administration to support VA's organizational mission.

Patient Scheduling

Veterans deserve high quality care and a fundamental aim for any health care system to deliver timely care. In 2008, DAV raised our concern about the validity of VA's data in measuring timely access to VA care and highlighted weaknesses in VA's scheduling software, ambiguous policies and inconsistent procedures. For example, VA's legacy Medical Appointment Program, first deployed in 1985, is a bur-

densome roll and scroll scheduling application. There have been a number of attempts to improve on this system since and current efforts include evaluating two concurrent pilot programs and an evaluation of a commercial off the shelf (COTS) solution, which has not yet been piloted. The COTS solution is intended to be a far more comprehensive solution and is expected to, among other things, include patient facing utility, standardize scheduling processes, data and business rules across VHA, and manage demand, supply and utilization of resources.

The two concurrent pilot programs include VistA Scheduling Enhancement (VSE) and the Veteran Appointment Request (VAR) application. VSE is intended to reducing the burden on schedulers using a modern graphical user interface layered on top of the Medical Appointment Scheduling System. After testing at 10 locations, VA has announced it will make a decision this week to make it broadly available gargest the health garge system.

across the health care system.

VAR is a mobile and online application for veterans to self-schedule primary care appointments and request assistance in booking both primary care and mental health appointments at the VA facilities where they receive care. In addition to scheduling appointments, veterans can use VAR to track appointment details and the status of requests, send messages about requested appointments, receive notifications and cancel appointments.

The COTS solution is intended to be a key component in VA's long-term strategy to address the aging VistA by improving scheduling and provide workflow management and analytics capabilities. If VA decides to pursue VSE and VAR and forgo a more comprehensive COTS solution, it is imperative that VA address the gap it creates based on its long-term strategy to have a state-of-the art health information

technology system.

Telehealth

Telehealth minimizes barriers associated with geography by using technology to deliver timely care. It also alleviates some of the struggles in the VA health care

system from increasing cost of care to the shortage of VA clinicians.

To facilitate greater use of telemedicine, Congress must enact legislation to allow any VA clinician licensed to provide telemedicine to do so to any veteran enrolled in the VA health care system. Equally important, VA should address the current requirement to privilege and credential telehealth providers at each location the provider is to deliver telemedicine. Proposals include centrally administering credentialing and privileging or establish a national service agreement to grant providers national level privileges and credentials rather than requiring privileges and credentials for each VA facility.

Purchasing Care in the Community

In fiscal year (FY) 2016, nearly a third of all medical appointment (25.5 million of 83.8 million appointments) was made with community providers-a 61 percent growth from FY2014. Yet when referring veterans to community care, VHA continues to experience challenges in processing claims and payments. Timely and accurate claims processing and payment is as important to community providers as it is to veterans (who are at risk of being billed and sent to collections when community providers are not paid).

Despite the tremendous growth in claims processing workload, commensurate resources have not been dedicated to make needed improvements. VHA continues to have separate claims processing systems using VistA, Fee Basis Claims System (FBCS), and manual processes, all of which are antiquated compared to what is

available commercially

In addition, claims for adult day care, bowel and bladder care, contract nursing homes, dental, dialysis, home health services, newborn care, and pharmacy, are not processed through FBCS but rather through VistA (dialysis is processed in a com-

mercially acquired system).

Several weaknesses exist in the end-to-end process to purchase care in the community. For example, clinical and administrative determinations to authorize vetreans to receive care in the community are approved in Vista and manually entered in FBCS-where each VA Medical Center (VAMC) or Veterans Integrated Service Network (VISN) had its own version of FBCS. FBCS is then used to authorize, process and pay for community care. This lack of integration between VistA and FBCS creates increased risk for error and inefficiencies.

Without a comprehensive IT solution, VHA still relies heavily on paper claims requiring manual handling. Electronic claims received from community providers remain low despite the Federal government mandate in Affordable Care Act (ACA) addressing the administrative burden faced by community providers in the claims and reimbursement process. In general, transaction standards that were adopted under HIPAA enable Electronic Data Interchange (EDI) through a uniform common transaction standard.

The benefits of electronic claims interchange include reduced administrative overhead expenses, improved data accuracy, cleaner claims submission and reduced claims processing time. Because VHA is unable to deliver on the benefits of EDI, community providers remain hesitant to comply with the government mandate reinforcing the status quo within VHA.

Another weakness is that costs for some purchased care authorizations are manually estimated and entered into FBCS, leading to inconsistencies estimating costs and thus affects the ability to accurately report available resources for the purposes of budgeting.

In the "choice" program, gathering of information on registration, appointment and authorization provided to VHA by the third-party administrators (TPAs) is manually intensive, inefficient, and increased the risk of error. Moreover, VHA does not have the proper IT system in place to properly oversee the "choice" program currently relying on both manual and systems possibly due to the significant reorganization of CBO as required by the same law requiring the establishment of the "choice" program and the short timeline to implement the "choice" program.

For well over a decade, we have spoken to numerous community providers who are dedicated to providing ill and injured veterans the best care they can provide. They consistently describe their dilemma with VHA in terms of the reimbursements they receive. They are able to continue caring for veterans if their reimbursement rate is low but received quickly. They are also able to continue to work if their reimbursement rate is adequate but slow. However, they are unable to continue to partner with VHA is their reimbursements are both slow and low-as is the general case today.

If in the future, VA is to have a high performing integrated health care network with other Federal and community providers, it must show it values committed partners in which VHA IT plays a crucial role.

Closing

Because of the breadth and depth of the three major IT challenges of information security, interoperability, and the aging VistA, as well as the other agency IT issues, it is clear that Congress and the VA must work together and engage all stakeholders transparently and collaboratively.

Mr. Chairman, DAV appreciates the opportunity to provide this statement to the Committee on this important topic and urges Congress to legislatively address the opportunity to provide the control of the control o

Mr. Chairman, DAV appreciates the opportunity to provide this statement to the Committee on this important topic and urges Congress to legislatively address the IT needs of VA. I would be pleased to further discuss any of the issues raised by this statement, to provide the Committee additional views, or to respond to specific questions from you or other Members.

THE AMERICAN LEGION

Chairman Roe, Ranking Member Walz, and distinguished members of the House Committee on Veterans' Affairs on behalf of National Commander Charles E. Schmidt and The American Legion; the country's largest patriotic wartime service organization for veterans, comprising over 2 million members and serving every man and woman who has worn the uniform for this country; we thank you for the opportunity to testify regarding The American Legion's position on Assessing the VA IT Landscape: Progress and Challenges.

"Overhauling the health care system for Americans who answered the call of duty by serving in the military is a national priority. The country's largest integrated health care delivery system is responding to these challenges and aims to reestablish trust by expanding methods of providing care and emphasizing the concept of "whole health" and adopting a veteran-centric approach in everything we do. It will be necessary to reimagine the future of VHA health care delivery. Partnerships with Federal and community health care providers may result in better access and broader capabilities and will require a new infrastructure. The future requires the use of best practices in science and engineering to improve the quality, safety and consistency of veteran's experience, regardless of the site or type of care." David Shulkin, M.D. ¹

Department of Veterans Affairs (VA) Information Technology (IT) infrastructure has been an evolving technological necessity over the past 37 years, sometimes leading the industry, and sometimes trailing. The American Legion has been intrinsi-

² New England Journal of Medicine http://www.nejm.org/doi/full/10.1056/NEJMp1600307

cally involved with VA's IT transformation from the inception of Veterans Health Information and Technology Architecture (VistA) to the recent introduction of VistA-e[volution] for medical records, as well as being a pioneer partner in the concept

and integration of the fully electronic disability claims process.

Leading the field in 1978, VA doctors developed an electronic solution to coordinate and catalogue patients healthcare long before their private sector colleagues, who were slow to follow, while some private physicians still refuse to automate

today.

As has been well documented, the Veterans Benefits Administration (VBA) suffered from horrific backlogs peaking in March 2013 at over 611,000 claims. Today, that backlog has been reduced to approximately 100,000 claims. VBA was mired in a mid-20th century work model lacking IT integration. Shuttling physical cases from one station to the other and from regional offices to medical centers adding to delays to adjudication decisions. Though not perfect, the implementation of Veterans Benefits Management System (VBMS) and stakeholder enterprise portal (SEP) has significantly reduced VA's reliance on hard copy cases. Today, cases can be viewed throughout the Nation collectively, greatly assisting advocates, VA, and ultimately, millions of our Nation's veterans.

IT automation is expensive to implement and expensive to maintain, especially when maintaining legacy equipment. As in all digital space, IT infrastructure advances so quickly that most IT infrastructure is outdated by the time it is fully implemented, and VA's IT infrastructure is no different. Unfortunately, in this case it is simply the cost of doing business in a technologically advancing society. With this in mind, companies are turning to rented cloud based resources and Software as a Service (SAS) to mitigate costs. These services have a lower up-front investment and negate the need for hardware maintenance and software upgrades in many cases.

Information Technology is inextricably intertwined into many of the services we take for granted, such as; telephone systems, appointment scheduling, procurement, building access and safety controls, and much more. Maintaining an up-to-date system is not a luxury, it is necessary, and The American Legion has found that VA's

IT infrastructure is aged and failing our veterans.

One of the primary complaints The American Legion receives regarding VA healthcare is scheduling issues. VA's inability to schedule the full complement of veterans' healthcare needs from one central location causes a multitude of delays and billing problems and puts veteran patients at risk when all of the members of the veteran's health team are unable to effectively collaborate online.

In order for VA to safely and effectively serve veterans going forward they need

a 21st century data system that incorporates;

A single lifetime Electronic Health Record system (EHR),

- One Operation Management Platform consisting of one resource allocation, fi-nancial, supply chain, and human resources system that are integrated seamlessly with the EHR,
- A single Customer Relationship Management (CRM) system

If proprietary, the system needs to be built using open source code, which will allow the program to remain sustainable and enable future competitive Application Programming Interface (API) Framework that will provide seamless interoperability

with internal and external systems.

Once this system is developed, metrics and analytics will be available to all levels of leadership from decentralized locations. Legacy viewer and 130 different versions of VistA simultaneously running across the national and international VA landscape that has been patched together is outdated and ineffective. A veteran should be able to walk into any VA medical Center (VAMC) anywhere in the country or abroad, and the first intake specialist to assist that veteran should be able to pull the pa-

tient's record up instantly. This is not possible today.

Initiatives like MyHealtheVet, eBenefits, and the recently launched Vets.gov are all steps in the right direction, and all need to be tied into a single user interface system. The American Legion also supports extended use of public/private partnerships similar to the team detailed to VA from the private sector who have spent the past 18 months building the Vets.gov portal. IT industry leaders such as Amazon, Google, Microsoft, and Cisco have already partnered with VA in a number of areas and appear willing to help ad cost, below market cost, or even donated services, and VA needs to have the flexibility to maximize these relationships.

Finally, as we struggle to keep up with the multitude of programs and expenditures related to VA's IT program, The American Legion is outraged that one of VA's first experiences with integrating cloud services into the VA program was mismanaged and squandered more than \$2 million in taxpayer funds. VA does not have the freedom to learn as they go and needs to partner with or hire experts in cloud computing before they engage in cloud brokerage services. A few days ago the VA

Office of Inspector General found 2;

"OI&T spent over \$2 million on a cloud brokerage service contract that provided limited brokerage functionality and that VA's actions did not ensure adequate system performance or return on investment. We determined total project costs exceeded \$5 million and the system's limited brokerage service functionality prevented it from being used in a production environment. This capability is essential for delivery of cloud services. The project manager did not ensure that formal testing and acceptance were conducted on project deliverables."

These deficiencies occurred because of a lack of executive oversight and ineffective project management. Without enforcement of oversight controls, project leadership cannot ensure it will receive the value of contract deliverables or demonstrate an

adequate return on investment for the project."

In closing, The American Legion calls on Congress to ensure that VA is tying all of their IT programs together into a seamless program capable of processing claims, managing veterans' healthcare needs, integrating procurement needs so that VA leaders and congress can analyze annual expenditures versus healthcare consumption, integrating patient communications into their profiles, and ensuring seamless transition between the Department of Defense and VA.

These are the needs of our 21st century fighting force, these are the needs of our returning veterans, these are the needs of our aging veterans, and these are the responsibilities of our Federal government who called on these heroes to defend the Constitution of the United States, against all enemies, foreign and domestic.

Conclusion

The American Legion thanks this Committee for their diligence and commitment to our Nation's veterans as they struggle to receive the benefits they have earned for their service to the country. Questions concerning this testimony can be directed to Warren J. Goldstein, Assistant Director in The American Legion Legislative Division (202) 861–2700.

VETERANS OF FOREIGN WARS

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

On behalf of the men and women of the Veterans of Foreign Wars of the United States (VFW) and our Auxiliary, thank you for the opportunity to offer our thoughts on the progress and challenges we see in the Department of Veterans Affairs' Information Technology (VA IT) landscape.

Historically, VA has faced significant challenges in developing and deploying state-of-the-art IT systems. Throughout the agency's history we have seen stops and starts that have brought about significant innovation, only to see these systems ne-

glected and deteriorating over time.

VA was the first health care system in the country to deploy a fully electronic and interoperable health care recordkeeping system; but as we have observed over the years, sustainment of this system has slowly led to its obsolescence. Now the agency

is playing catch up.

VA should be applauded for its efforts to make information more accessible to veterans by developing and deploying interactive portals through which veterans can manage their health care and benefits—eBenefits, MyHealtheVet and vets.gov. However, these systems are imperfect and at times unstable, leading to frustration for those who seek to access them and utilize their features. Regardless, VA must be commended for moving out deliberately on a number of these innovations with the goal of improving the veteran experience.

Over the past few years, VA has moved out aggressively to reform an antiquated, paper-based disability claims process through the development of the Veterans Benefits Management System (VBMS), and new stakeholder tools for accredited veterans service organizations (VSOs) like the VFW, specifically the Stakeholder Enterprise Portal (SEP)—a direct upload portal for VA Central Scanning, and the Digits-2–Digits (D2D) electronic claims submission pilot.

² VAOIG https://www.va.gov/oig/pubs/VAOIG-15-02189-336.pdf

The VFW is generally impressed with the VBMS system. Since its deployment, our network of accredited representatives who assist veterans across the country have found the system to be generally user-friendly and efficient in tracking veteran claimants. This is a significant step in the right direction as VA seeks to develop 21st century IT capabilities. However, VBMS continues to have critical flaws that must be addressed.

VA's development of a direct upload portal through which accredited VSOs can submit claims documents and evidence directly to VA Central Scanning has the potential to be a game-changer for VA, if deployed properly. Since the rollout of SEP this fall, the VFW is generally happy with this system. It is intuitive. It is easy to monitor work flow. It is meticulous in keeping records of transactions. The VFW believes this capability was a longtime coming for VSOs and has the potential to sig-

inficantly improve the efficiency of our service to veterans.

Though eBenefits and MyHealtheVet have proven to be helpful resources for veterans, each system requires a different unique user name, an onerous password combination, and in-person verification for full access. The systems have also proven to be unstable with regular outages or disabled features. Veterans have consistently communicated these challenges to the VFW, and the VFW has in turn asked VA for a more intuitive, single-portal solution. Thankfully, VA listened and is incremen-

tally deploying a quality single-portal solution via the vets.gov migration.

The VFW has been privy to demonstrations of vets.gov and we have been repeatedly asked to stress test new features of the portal. To date, we are very satisfied with the product. VA should be commended for seeking out a competent third party, veteran-owned contractor—ID.me —who developed a state-of-the-art identity verification system that makes full access to the portal an easy transaction. When our staff was asked to sign up for the portal on our own time, it took many of us a matter of only minutes to verify our identity and start working inside the portal, rather than the burdensome verification process that was required to reach the same level of authentication for VA's eBenefits and MyHealtheVet. We sincerely appreciate VA's collaboration on this initiative and we look forward to continuing to work together to deliver a high quality, full service benefits management portal to our veterans.

VA has also made significant progress in leveraging health information exchanges to integrate private sector health care data with the VA electronic health care records of veterans who receive their care from VA and community care partners. Originally developed as a way to bridge the gap between VA and Department of Defense, the Virtual Lifetime Electronic Record (VLER) has also helped VA integrate the private sector and VA health care records of nearly 700,000 veterans. VLER eliminated the need for veterans to carry their records from one appointment to another, private providers faxing records to VA, and VA needing to scan paper records into its system. Doing so improves health care outcomes by reducing duplicate tests, improving coordination of care, and expediting the delivery of care for veterans.

The VFW supports continuing the VLER program and calls on Congress to eliminate barriers to its success, such as an outdated law that limits VA's ability to share

health care records with its community care partners. The outdated law requires VA to withhold the medical information of veterans who have been diagnosed with substance use disorder, human immunodeficiency virus, and sickle cell anemia, hindering VA's ability to transfer medical records with its community care partners.

Congress must remove this statutory limitation.
Finally, we must commend the Board of Veterans Appeals for pragmatically seeking out new ways to manage workflow. Though we have not seen finite deliverables to date, we support their efforts of leaning on IT professionals to stress test potential solutions before prematurely deploying an unworkable solution.

Though the VFW applauds the initiative VA has taken in developing and deploying IT solutions, we face challenges in collaboration to develop the best possible resources to serve veterans. We have also heard a dangerous word around VA of late that has the VFW deeply concerned about the future viability and functionality of

these products: sustainment.

The VFW and our VSO partners consistently meet with VA to discuss our shared objectives in helping veterans navigate the complex VA benefits landscape. We have provided consistent feedback on the development and deployment of VA IT systems at all levels of the agency, to include meetings directly with the Office of Information Technology (OIT). However, some recent developments have left the VFW feeling neglected in helping to execute our part of VA's mission: meeting face-to-face with veterans to help them understand and navigate their benefits.

As VA develops new IT systems, the agency has a bad habit of prioritizing internal business processes over the needs of veterans. Past VA Secretary Bob McDonald consistently articulated this as one of his chief concerns in transforming VA from a rules-based organization into a principle-based organization. The VFW agrees that this is a draconian task that has sadly not improved much over the past couple of years. Two examples of this are the recent decision by VA to enforce Personal Identity Verification (PIV) access rules for VA computer systems; and the deployment of the National Work Queue (NWQ) for veterans' claims within VBMS.

First, the VFW continues to have significant problems in accessing VA computer

rirst, the VFW continues to have significant problems in accessing VA computer systems because of the PIV card access rules set forth by VA. Last spring, VA recognized its significant challenges in issuing timely PIV identification cards and loading proper IT permissions all across the agency. VA also recognized the need to increase IT security, which is something the VFW understands. However, instead of fixing the PIV card issuance problems, VA OIT eliminated exemptions and now requires PIV card access to log onto VA IT systems.

Make no mistake; the VFW understands that VA needs to ensure information security across its systems but PIV enforcement and the simultaneous pedicat to the

wake no instance, the VFW understands that VFA needs to ensure mornation security across its systems, but PIV enforcement and the simultaneous neglect to the PIV issuance processes has locked many VFW advocates out of the IT systems to which we need access to serve as responsible advocates for veterans. For example, one of our accredited representatives in Kansas City, Missouri still needs his IT permissions added to his PIV card to once again access VBMS. He has raised the issue locally and the VFW has raised the issue here in Washington. Instead of finding a solution, VA business lines point fingers at one another. Our representative has lacked the proper access to the systems he needs for more than eight months.

What the VFW finds so disappointing about the PIV issue is that this is not new technology and this is not a new challenge for VA. As a matter of fact, the Federal technology and this is not a new challenge for VA. As a matter of fact, the Federal government is already contemplating migrating away from this technology, as it is already more than a decade old. By a point of reference, this technology was first introduced to the Federal government through the military. Back in 2006, while still serving in the U.S. Army Reserve, my military ID card was set to expire. At the time, I was a Department of the Navy civilian who required a PIV badge to access the Navy networks. During my lunch break, I was able to visit the ID office on Naval Station Newport where they took my photo, issued me an ew U.S. Army ID card and leaded it with the proper IT permissions to access the Navy network. card, and loaded it with the proper IT permissions to access the Navy network. I walked back to the office with my new, functional ID and continued my work unabated. Fast forward ten years, and VA still cannot figure this out. The VFW believes this is inexcusable.

Next, as VA deployed VBMS, they also worked to develop NWQ to distribute work around the country. The VFW generally supports the concept of NWQ and we agree with VA that if implemented properly, it has the potential to ensure consistent, accurate and timely benefits to veterans. Since its inception, VA has asked for VSO input on NWQ. Sadly, very few of our needs have been addressed in its deployment. The VFW will present on this topic before the Disability Assistance & Memorial Affairs Subcommittee next week, but we will summarize our concerns here.

For decades, accredited VSO representatives have been afforded 48 hours to per-

form a final review of a proposed rating decision before it is promulgated and sent to the veteran. The VFW and our partner VSOs view this as a final quality assurance check to ensure VA and our accredited representatives have produced an accurate rating decision for our veterans. Unfortunately, the deployment of NWQ has prevented us from performing this final quality check.

VA moves work around its regional offices very quickly via NWQ. The VFW un-

derstands this. It makes sense for VA to shuffle its business processes to offices that have the capacity to complete the work in a timely manner. However, when VA proposes a rating decision and posts it for review, they do not return the claim to the regional office where the claim originated —depriving the accredited VFW service officer familiar with the claim the opportunity to review it for accuracy before the claim is finalized. This makes no sense to the VFW, especially considering that our resources are customer-facing and aligned to serve the veterans in a particular com-

This becomes a problem when VFW representatives are overwhelmed with excessive rating reviews in offices postured to handle only a small population of veterans. This is also a problem in states that invest finite state tax dollars in veteran claims

assistance programs designed to serve veterans within their borders.

Our argument to VA is that the processes they have sought to automate through NWQ are rules-based. This means any properly trained VA employee should be able to execute the business process to a high standard. This makes sense for VA. However, when VA assigns the rating review to a VSO in a random office, they do not take into account the customer-facing aspect of the VSO's job. VSOs and state gov-

ernments align their resources to meet the needs of the community. Our job is customer service. Our clients share sensitive personal information with our advocates in confidence. It is our duty as veterans' advocates to ensure they receive the best possible service at the time and place of their choosing, not VA's choosing. Currently, the distribution of work via NWQ makes it nearly impossible for VSOs to

do our job to a high standard.

VA has offered workarounds to this problem, but workarounds are not solutions. The VFW believes that once VA is ready to propose a rating decision, they must return the claim to the Station of Origination (SOO) for the 48-hour review. The VFW not only believes this will allow VSOs to conduct a proper review, but this will also make it easier on VA. When VSOs catch errors in the rating review, the process is improved. Our accredited representatives learn how VA rates, VA learns about its deficiencies, and veterans fully understand their rating decisions. This is a mutually supportive process that avoids conflict and cuts down on appeals. For the VFW, we consistently find errors in 10 percent of our rating reviews. If these are corrected, we help VA get it right the first time.

When we have raised this issue with VA, they have responded with indignation. They feel that their workarounds should be sufficient and they claim that resources will not allow them to reroute the work. The VFW believes that VA already has the

will not allow them to reroute the work. The VFW believes that VA already has the capability to reroute the work, but they are unwilling to do so. Since NWQ moves work from office to office so frequently, and then eventually returns the work to the SOO, the VFW believes that the infrastructure is in place to move the work to reflect the veteran's needs in the final review process.

Again, as VA's partners, we believe NWQ can be a very good system to help veterans receive consistent, accurate, and timely benefits. We understand and support VA's initiative in resourcing work based on capacity in a digital environment. All we ask is that VA lets us help them deliver the best possible outcome to our veterans. erans.

With regard to sustainment of projects, conversations about the future viability of IT initiatives have become more pessimistic as the agency prepares for the sustainment phase. Simply put, VA has told the VSOs that there is no more money to continue developing many of its IT systems, particularly its claims management systems, and that sustainment means they will only have the ability to fix emer-

gency glitches.

The VFW believes VA has made significant progress in the development and deployment of many of its IT systems. However, we must warn against stagnation. In the past, we have seen Congress make significant investment in the development of IT resources, and we have seen VA move out aggressively to deploy these solutions. Unfortunately, once deployed, we usually see these solutions stagnate, meaning veterans, VSOs and VA employees are left to work with half solutions that

quickly become obsolete.

Proper IT development requires consistent investment in the development and evolution of a product. For example, I was an early adopter of Facebook back in 2004 when it was relegated to connecting with other students on college campuses in the Northeast. At the time, there were no photo albums, no news feeds, no external applications, and no public access. Since then, Facebook has continued to make investments internally and externally to build what has become one of the largest interconnected information networks in the world. The developers at Facebook never settled on what they believed to be a "good enough" solution. The same can be said for Google, which evolved from a state-of-the-art search engine into a full-service digital platform for communication, information management, and commerce.

By contrast, VA develops groundbreaking systems, like the aforementioned electronic health care record —Veterans Health Information Systems and Technology

Architecture (VistA)

but stagnation and VA's inability to keep pace with the private sector quickly renders such innovations obsolete. When it was first developed more than 30 years ago, VistA won awards for changing the medical records landscape and was praised for ushering in 21st century health care. VistA continues to serve as a critical tool for America's largest integrated health care system, but it is no longer the state-of-theart system it once was. Private sector electronic health care record systems have not only caught up to VistA, they have surpassed its ability to assist health care pro-

viders in caring for their patients.

The VFW agrees with the Commission on Care that it is time for VA to adopt a commercial-off-the-shelf (COTS) solution to its aging electronic health care system. VA must be commended for its innovation and for continuing to modify VistA to meet today's needs, like developing a new user interface called the Enterprise Health Management Platform (eHMP) to reduce the time providers spend on the computer and maximize face-to-face time with their patients. To that end, VA has devoted time and resources to developing workarounds or patches to update VistA's aging infrastructure. We are glad VA has continued to turn to the VFW and our VSO partners when developing such workarounds and patches to make certain they meet the needs of veterans. However, the VFW believes VA would be better served by adopting a commercial electronic health care record infrastructure that can incorporate many of its new projects or completely eliminate the need for patches to VistA.

VA can never build an IT system that declaration in the patches in the

VA can never build an IT system then declare victory and walk away. Our veterans need and deserve better, which is why we ask this Committee to continue supporting the investment and evolution of VA IT resources. We all know there are significant challenges in this mission, but we look forward to working with VA and this Committee in addressing them.

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